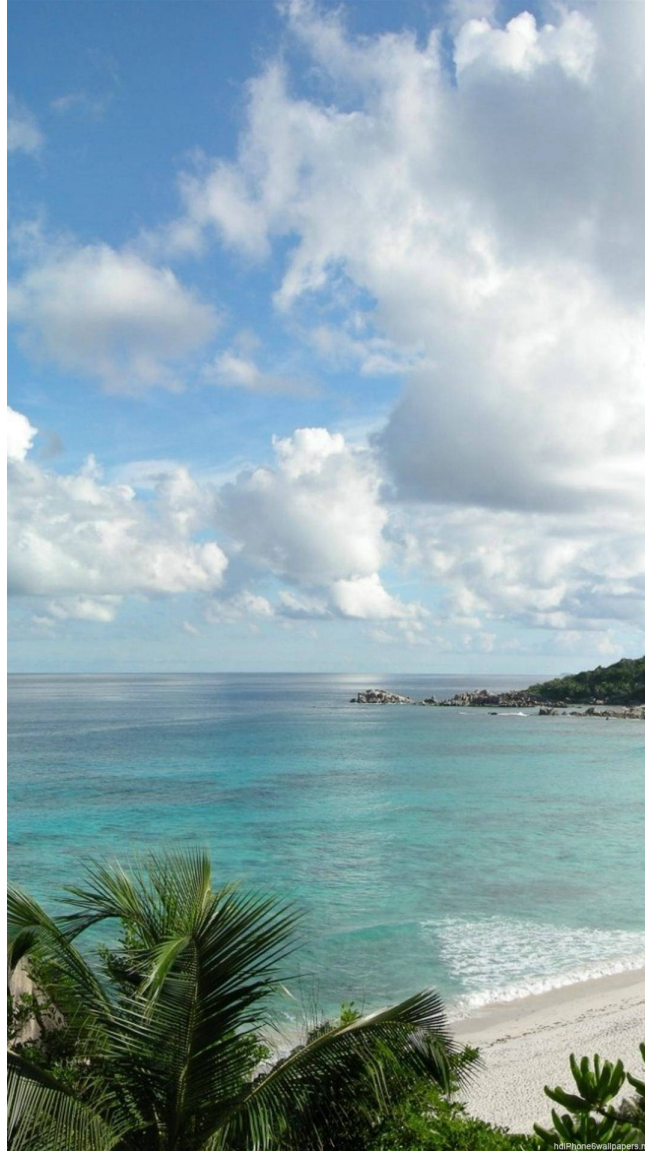


Ch. 11 – daily "Non-Duality & Science" blogs

TABLE OF CONTENTS

page

<i>TOE vol 2</i>	<i>prajnanam brahma</i> Consciousness is the Absolute	<i>ayam atma brahma</i> This Self is the Absolute	<i>tat tvam asi</i> That Thou Art	<i>aham brahmasmi</i> I am the Absolute Reality	J Stiga
13					3
15					6
17					10
19					16
21					20
23					25
25					27
27					32
29					35
31					39
33					42
35					48
37					51
39					54
essay outside 4 & 6					57



NMT (No-Me Teaching) new series 13

Fine-Tuned Universe 6:

Prior to excerpting the other Ramana Maharshi disciple in the text below we continue the series: *Fine-Tuned Universe*, the premise that a small change in several of the dimensionless fundamental physical constants would make the Universe incapable of Life.

[In the unreal reflection called the "Universe", a product of an unreal Mind, even there, Infinite Intelligence is evident and inspiring.]

The Fine-Tuned measure of the continued, exponentially increasing Expansion (*self-stretching property*) of the Universe, at a faster and faster rate, allows to see less and less

of the Universe as time goes on. This knowledge of the Universe will decrease with Time. Intelligent beings will lose the capacity to draw adequate Energy for Work from the Heat flow of the Universe. Inevitably, heat flow will be so tiny that all metabolic reactions will cease. "Consciousness is eventually lost." [*Assuming Consciousness were physical, which can never be explained that way.*]

Stephen Hawking and Carl Sagan argued that the Intelligent Design of such a vast Cosmos for such an infinitesimal creature seems wasteful. But sufficient Age (& *thus expanding size*) are requisite for long Evolution. The Universe is the necessary size and age. Neither too or too little Expansion, an enormous but so far limited Universe is itself, carefully "machined" for Billions of years, Anthropic Fine-Tuning.

Some skeptics have attempted to trivialize the anthropic principle with the assertion that humans simply would not be here to observe the universe unless the extremely unlikely did somehow happen to take place. British philosopher Richard Swinburne responded to this notion with a simple illustration. He points out that the survivor of a firing squad execution would not attribute his or her survival to a lucky accident. Rather, the survivor would conclude that either the rifles were loaded with blanks or that each of the executioners missed on purpose. The measured fine-tuning of the universe tells us that Someone purposed for humans to exist for a certain period of time.

The other argument claims that there is nothing remarkable about the Fine-Tuning of the Universe if an virtual *infinitude* of Universes exist, each with a different set of characteristics. In this case, Chance might as plausible that at least one would manifest the characteristics necessary for human Life.

This resembles a gambler finding hundred thousand coin "randomly" landing "Heads". He thereupon rationalizes that 2100,000 such coins exist (*though he cannot see them, like a Multi-Verse*), each Coin having been flipped 100,000 times by 2100,000 coin flippers. Statistically, one of these coins could come up heads 100,000 times. But the gambler has no evidence for the existence of the other coins, coin flippers, or distinct results. With a sample size of one, the only rational conclusion to draw is that someone "fixed" the coins to all land on Heads. In the case of the Universe, no evidence can be found for the existence of other Universes. Relativity dictates that the Space-Time envelope of a Universe that contains observers can never overlap that of any other Universe or Universes. Thus, the sample size for human observers is one and the conclusion that "Someone" purposed, or "fixed", the universe for human existence remains compelling.

Like a lucky coin toss, we can choose to examine the Universe, the "coins" more closely. Research will likely even yield an increase in the number of Fine-Tuned characteristics and the degree of Fine-Tuning. Such would amount to an Anthropic Principle test.

Some more selected verses from the other Maharshi disciple:

What happens in the Deep Dreamless Sleep state is the same as when you are awake.

Thinking that you are not mature is not the kind of judgment to make about yourself. If you hold onto this kind of thought, this will be a hindrance to your realization, because the Truth is already within you. Maturity and immaturity belong to the Mind. You are not the Mind; you are already the Self.

You see a big lamp before you. Your own lamp is unlit. So you bring your lamp to the lamp which is already burning. And when you go away from that lamp, you have your own lamp, your own light. Wherever you go from that point on, the light is with you. The state of *jnana* is the same for all. Anyone who realizes the Self is in the same state of peace, which is beyond the mind. Though the experience of the Self is the same in all cases, it is true that some *jnanis* end up helping a lot of people, whereas others, who are equally enlightened, may help fewer people. Some *jnanis* do not teach at all. They live ordinary lives and are rarely, if ever, recognized for what they really are. Water can be in a well or it can be in a lake. It is the same water, but one source can quench more thirsts than the other. A small lamp can light up a room, whereas a big one can light up a whole street. Bhagavan Ramana was one of those big, blazing lights that could light up a huge area. He guided and brought light to many people.

Only a few people have the capacity to guide a large number of people towards the Truth. Realizing the Truth is one thing, but guiding others towards it is something else. All *jnanis* are not capable when it comes to guiding others.

This kind of questioning will not help you to realize the Self. Questions such as these will disappear if you have a strong desire for realization. Your Mind will then not be occupied with such thoughts.

I would advise you to question yourself, "Who is asking the question ? And who is getting the answer ? " If you have this attitude towards your doubts and your questions, your quest for their source will lead you back to the Self. In that place there are no questions and no answers. There is only Peace.

We often say, "I slept happily" [Deep Dreamless Sleep] but if someone asks you to explain in words the Happiness you felt in that state, what can you say ? You can

experience it, but you can't really explain it. This is how the Self is. You can experience it, you can become it, but you cannot explain this state through words.

It was my experience that through continuous *sadhana* I gradually relaxed into the Self. It was a gradual process. It is not something new that suddenly comes. It is eternally there, but it is covered by so much. It has to be rediscovered. If he says "I don't know myself" or if he claims "I have not known myself" – both are statements to laugh at. Because you are *That*. You can be *That*, but there is nothing to say about it. If somebody says, "I am a *jnani*. I am an Enlightened person," then who is claiming that ?



NMT (No-Me Teaching) new series 15

Fine-Tuned Universe 8:

[In the unreal reflection called the "Universe", a product of an unreal Mind, even there, Infinite Intelligence is evident and inspiring.]

Going beyond the Weak Anthropic Principles (WAP) to the Strong Anthropic Principles (SAP) we hear: "The Universe *MUST* have those properties which allow Life to develop within it at some stage in its history". For 1 some 3 SAP versions one affirms that: There exists at least 1 possible Universe "designed" with the goal of generating and sustaining Observers", a version favored by Hoyle.

Barrow & Tipler favored 2 other. One, with more religious implications, is Wheeler's "Participatory Anthropic Principle" (PAP) whereby "observers are necessary to bring the Universe into existence."

Another is Hugh Everett's Many-Worlds Interpretation (MWI), essentially the 1st Multi-Verse after Parmenides & other older writers, which says: "an Ensemble, Quantum Mechanically generated, of many other different Universes is necessary for the plausible existence of our Universe. Each Quantum choice or alternative creates a new Universe for each possibility. [Feynman offered a comparable version in terms of Time, "histories", without requiring a Multi-Verse.] Everett launched his most fantastic Multi-Verse model to "undo" the Empiricism of Schrödinger & the Copenhagen Convention.

In 1925, Schrödinger had constructed a Mathematical description of electrons as waves around the atomic nucleus, rather than as the discrete particles of the Bohr atom. The following year, Bohr used Schrödinger's Wave Equation to construct (by squaring the Complex Amplitude) a Max Born Probability Wave equation expressing the probable position of a particle. The Probability Wave Equation gives a neat description of the light and dark bands in the Double Slit experiment using a beam of photons. Before it was observed, the particle was literally "nowhere". Bohr's Empiricist Principle stated that: "what cannot be measured, even in principle, cannot be said to exist." [*Multi-Verses clearly fail.*] This compares with Aristotle's Empiricist Principle that there is nothing in the Intellect which was not first in Sensation. Opponents to such a view prefer a more comfortable "distance" between Ontology [*being*] & Epistemology [knowledge] in Objective reality, whereas Non-Duality equates the 2 in Non-Objective Reality.

John von Neumann [*inventor of Game Theory, the Computer, etc.*] in his formalism of Quantum Mechanics applied Backward Epistemology: since we know Quantum Mechanics or Quantum Theory, and we know that the theory is highly confirmed, the World must conform to the Theory. Some criticize this as *dogmatic metaphysics* but Non-Duality might consider it an *objective* reflection of Non-Objective Reality.

Either an "observer" is needed to *collapse* the Wave Function in order, to actualize reality (PAP) or else, wave-collapse being unnecessary for actualization, the wave generates

many realities (Everett). Reconciling the *Discrete* Quantum Mechanics with the *Continuum* of Relativity, the greatest quandary in Theoretical Physics, remains to cast some doubt about interpreting Quantum Mechanics.

Some more selected verses from the other Maharshi disciple:

All these external appearances that you see in front of you are *Maya*. They have no fundamental abiding reality. To find the Self, to find what is True and Real, you have to look inside yourself. You have to find the Source, the place where all these mental projections arise. You are looking for satisfaction in the outside World because you think that all these objects you see in front of you are real. They are not. The Reality is the *Substratum* in which they all appear.

An elephant is made out of wood. If we see it as wood, it is wood. But if we get caught up in the name and form, we will see only an elephant and forget that its underlying nature is wood. All is your own Self. This form is different; that form is different. This is more powerful; this is worse. These are all judgments you make when you see separate objects instead of having the true vision that all is an undifferentiated oneness. There may be different varieties of light bulbs, but the current that activates and sustains them is the same. You must learn to become one with this activating current, the unmanifest Self, and not get caught up in all the names and forms that appear in it.

A verse from one of the *Siddhas*: "Because of your Ego you are going to the forest to look for spiritual light. You are looking for this *darshan* of light. These things are the illusion of the Mind. They depend on the states of the Mind and the functioning of the Mind. That which you are searching for is within yourself."

Bhagavan wrote in *Ulladu Narpadu*, verse 11: "Knowing all else without knowing oneself, the Knower of objects known, is nothing but Ignorance. How instead can it be Knowledge?"

All the information the Mind accumulates and all the experiences it collects are Ignorance, false knowledge. Real Knowledge cannot be found in the Mind or in any external location. The Mind sees through colored glasses, and what it sees is tinted and tainted by that color. If your Mind is in a spoiled and disturbed condition, the entire World will appear to be in a spoiled and disturbed condition.

If your Mind is crystal clear, everything will appear to you to be clear and peaceful. Your most important objective must be realizing the Self. If you have not done this, you will spend your time in Ignorance and Illusion. You, your Mind, this World — they are all *Maya*. Don't become a slave to this *Maya*. Instead, realize the Self and let *Maya* become your servant.

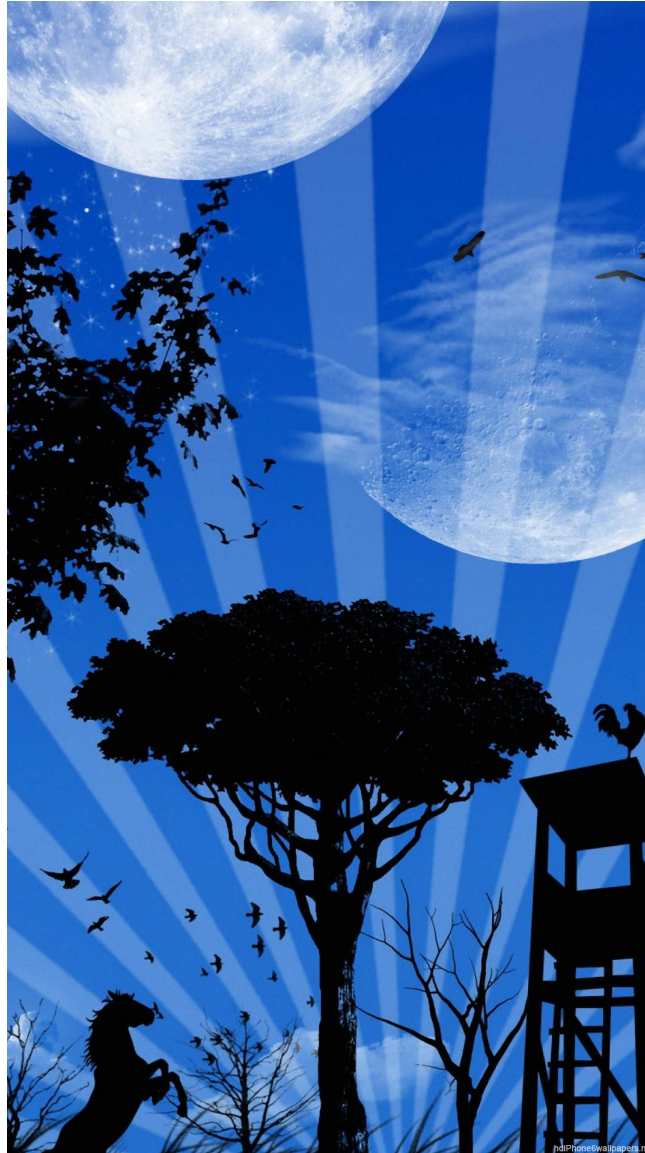
Another verse from the *Siddhas*: "Many people have struggled years together to realize the Self. Millions and millions of people have struggled, looking for the light outside themselves. If these millions and millions of people have died without understanding the Self that is within them, it is because they didn't understand the real Path."

You must find someone who has followed the right Path, someone who has discovered this Inner Truth for himself, and who stabilized himself there. Such a one will give you good advice. He will not send you out on unproductive adventures in the outside World. Following the advice of someone who has not reached this state is simply a case of the blind leading the blind. Neither knows the right path and both will eventually fall into a big hole. You may find a fruit that is very bitter and decide to improve its flavor. But when you come home, the fruit will not be any less bitter than the day you started. You can carry your Mind to every corner of the country, but when you return your Mind will be in the same state as the day you started. Mind is not improved by long journeys to far-flung places. Instead, make an internal pilgrimage. Take the Mind back to its Source and plunge it into the peace-giving waters of the Self. If you once make this pilgrimage, you will never need to go looking for Happiness or Peace in any other place.

The *Ribhu Gita* advises us to remember at all times, "I am the Self; all is the Self." The entire Universe is "I". If you can keep this permanently in your Mind, millions and millions of *punyas* will come to you. There were many books that Bhagavan liked, but *Ribhu Gita* was definitely one of the best. He once said that *Ribhu Gita* is a book for one's last life. I advise doing *japa* to the Self, either by repeatedly thinking about it or by repeating affirmations such as "I am the Self". This affirmation is the greatest *mantra* of all. If you can do it continuously, without interruption, you will get results very quickly. There is no greater *japa*, no greater *sadhana* than this. The one who is seeking is also that which is sought. The seeker and the sought are both Self. If you are not able to find this Self within yourself, you will not find it anywhere else. Searching on the outside and visiting holy places will not help you. Many people are visiting swamis, temples and holy places. Doing these things will not yield any good fruit.

For real and lasting results you have to look inside yourself and discover the Self within. You can do that anywhere. Keep up the meditation, "I am the Self" 'I am the Self', and be completely surrendered to that Self that is within you.

All I will say is that wherever you in Life, don't forget yourself. If you are still having some doubts as to whether this has been decided or not, don't indulge in them. Do what you have to do and remember the Self at all times.



NMT (No-Me Teaching) new series 17

Fine-Tuned Universe 9:

[In the unreal reflection called the "Universe", a product of an unreal Mind, even there, Infinite Intelligence is evident and inspiring.]

The Multi-Verse *scenario* was suggested by some Cosmologists as a way to avoid the conclusion that the Universe was specially designed for Life by a Grand Designer. Others saw it as a way to avoid having to say anything more about the problem of Fine Tuning at all. We see that once conscious Observers are allowed to intervene in the Universe, rather than being merely lumped into the category of "observers" who do nothing, that we end up with a *scenario* in which the *gods* reappear in unlimited numbers, in the guise of the

simulators who have power of Life & Death [as in *The Matrix* movie] over the *simulated* beings that they bring "create".

The *simulators* determine the Laws, and can change the Laws, that govern their Worlds. They can engineer Anthropic Fine-Tunings. They can pull the plug on the *simulation* [very *Biblical*] at any moment, intervene [very *Biblical*] or distance [like *Deism*] themselves from their *simulation*; watch as the simulated creatures argue about whether there is a God who controls or intervenes; work miracles or impose their ethical principles upon the *simulated* reality.

All the time they can avoid having even a twinge of conscience about hurting anyone because their toy reality isn't real, is it ? [While true in Non-Duality, highly ethical behavior in the Dream World is a necessity for Liberation.] They can even watch their simulated realities grow to a level of sophistication that allows them to *simulate* higher-order realities of their own.

Faced with these perplexities do we have any chance of winnowing fake realities from true ? What we might expect to see if we made scientific observations from within a *simulated* reality ? Firstly, the simulators will have been tempted to avoid the complexity of using a consistent set of Laws of Nature in their Worlds when they can simply patch in "realistic" effects. When the Disney company makes a film that features the reflection of light from the surface of a lake, it does not use the laws of Quantum Electro-Dynamics & Optics to compute the light scattering. That would require a stupendous amount of computing power & detail. Instead, the *simulation* of the light scattering is replaced by plausible rules of thumb that are much briefer than the real thing but give a realistic looking result – as long as no one looks too closely [like well done "lollipop" trees in a crayon drawing, or rudimentary faces behind all the windshields in a cartoon of the highway – but Non-Duality suggests just this thing, only with a high degree of fidelity that could include Electro-Dynamics and so on].

There would be an economic and practical imperative for *simulated* realities to stay that way if they were purely for entertainment. But such limitations to the complexity of the *simulation's* programming would presumably cause occasional tell-tale problems -- and perhaps they would even be visible from within. [Actually, however, many inexplicable things are reported – these could be some of those inconsistencies.]

Even if the simulators were scrupulous about simulating the laws of Nature, there would be limits to what they could do. Assuming the simulators, or at least the early generations of them, have a very advanced knowledge of the laws of Nature, it's likely they would still have incomplete knowledge of them (some philosophers of science would argue this must always be the case). They may know a lot about the physics and programming

needed to simulate a universe but there will be gaps or, worse still, errors in their knowledge of the laws of Nature. They would of course be subtle and far from obvious, otherwise our “advanced” civilization wouldn’t be advanced. These lacunae do not prevent simulations being created and running smoothly for long periods of time. But gradually the little flaws will begin to build up.

Eventually, their effects would *snowball* & these realities would cease to compute. The only escape is if their creators intervene to patch up the problems one by one as they arise. This is a solution that will be very familiar to the owner of any home computer who receives regular updates in order to protect it against new forms of invasion or repair gaps that its original creators had not foreseen. The creators of a simulation could offer this type of temporary protection, updating the working laws of Nature to include extra things they had learnt since the simulation was initiated.

In this kind of situation, logical contradictions will inevitably arise and the Laws in the *simulations* will appear to break down now and again. The inhabitants of the *simulation* – especially the *simulated* scientists – will occasionally be puzzled by the experimental results they obtain. The *simulated* Astronomers might, for instance, make observations that show that their so-called constants of Nature are very slowly changing.

It’s likely there could even be sudden glitches in the Laws that govern these *simulated* realities. This is because the *simulators* would most likely use a technique that has been found effective in all other *simulations* of complex systems: the use of error-correcting codes to put things back on track.

Take our genetic code, for example. If it were left to its own devices we would not last very long. Errors would accumulate and death and mutation would quickly follow. We are protected from this by the existence of a mechanism for error correction that identifies and corrects mistakes in genetic coding. Many of our complex computer systems possess the same type of internal “spell-checker” to guard against error accumulation.

If the *simulators* used error-correcting computer codes to guard against the fallibility of their *simulations* as a whole (as well as simulating them on a smaller scale in our genetic code) then every so often a correction would take place to the state or the laws governing the *simulation*. Mysterious sudden changes would occur that would appear to contravene the very laws of Nature that the *simulated* scientists were in the habit of observing and predicting.

We might also expect that *simulated* realities would possess a similar level of maximum computational complexity across the board. The *simulated* creatures should have a similar complexity to the most complex *simulated* non-living structures – something that

Stephen Wolfram (for quite different reasons, nothing to do with *simulated* realities) has coined the Principle of Computational Equivalence.

So we conclude that if we live in a *simulated* reality we should expect occasional sudden glitches, small drifts in the supposed constants and Laws of Nature over time, & a dawning realization that the flaws of Nature are as important as the Laws of Nature for our understanding of true reality. *[Similar to missing the point about the Multi-Verse that these anti-simulation arguments miss, there are other practical error points in the speculation. For instance, if there are bad simulations, there can still be some good ones. If ours seemed like a good one, as it does, no surprise. This doesn't mitigate against any number of bad simulations which, by the way, can always just be deleted until the simulator gains by experience. And again, inconsistencies abound in various reports about our World. These things, that are not explained, are ignored in the hope that explanation will come about somehow, sometime. Our World fits in, over the inconsistency argument, which does not really distinguish the simulation from our current World very well at all.]*

Some more selected verses from the other Maharshi disciple:

You should trust the Guru because his interest is in showing you the Truth. He may occasionally say things that are not true, but he will say them only because he knows his words will push you in the right direction.

I once heard a story that illustrates this. A rich man used to meditate once in a while. He had a Guru, an enlightened man, who used to tell him, "You are not the Mind or the Body. You are the Self. Always abide as the Self." The man would listen attentively, but neither his meditation nor his Guru's words had much of an effect on him. One day he approached his teacher and said, "You have been telling me for years that I am not the Mind and the Body, and that I am the Self. I believe it and I meditate on this, but I don't see any changes in myself. This must be a very difficult technique because I don't seem to be making any progress with it."

The Guru said, "Let me look at your palm. I may be able to see something that is more suitable for you." After examining the disciple's palm, the Guru's face dropped. "This is very bad. You should have put in more effort earlier in your life. I can see that you only have about one week to live. There's not much that can help you now."

The disciple was shocked. He went home thinking, "All my wealth and businesses are useless to me now. I put too much time into them, and not enough into my spiritual practice. There's nothing I can do now, but I can at least spend my last few days meditating." He went home and told his wife, "My life is coming to an end. My Guru has warned me that this is my final week. I am going to spend my last few days meditating

alone. Please tell my friends and relatives that I don't want to be disturbed." After a few days his Guru came to see how he was getting on.

"How's the meditation going ?" he asked. "Your wife tells me that you have done nothing else for days." "Gurudev, there is no one left to meditate. I have found the Peace you have been talking about all these years."

The Guru knew that this man would never focus full-time on realizing the Self because he was too caught up with his family and his business affairs. By making him think that his Death was imminent, he made him concentrate on what was real and important. And it worked. This is not just a story; it is a tactic that will work for anyone. If you can withdraw energy from your worldly attachments and instead focus full-time on the Self, you will soon get results. If you are having trouble with your enthusiasm for *sadhana*, just tell yourself, "I may be dead in 7 days." Let go of all the things that you pretend are important in your daily life and instead focus on the Self for 24 hours a day. Do it and see what happens.

You should only work enough to maintain the body. Try to avoid unnecessary activities. Less work is good. Devote yourself to your *sadhana* all the time. You dissipate your desire for the Self by undertaking all kinds of useless activities that waste your time and lead to attachments. You think that your life is endless and that you can put off meditation till a later date. With this kind of attitude, you will die filled with regrets, not filled with Peace. Always be aware of the Self while you work. While you are doing that work keep your thoughts a hundred per cent on the Self. You are what you think you are. You become what you think. If you think of the Self all the time, that is what you will become. If you live and die with thoughts of work and family, you will be reborn in a place with more work and more family business to worry about.

If you spend your life with worldly thoughts, these will be the thoughts that fill your Mind at the moment of your death. But if your life is devoted to *sadhana*, to attaining an inner Peace, then, at the moment of your death, this will be the State that you die in.

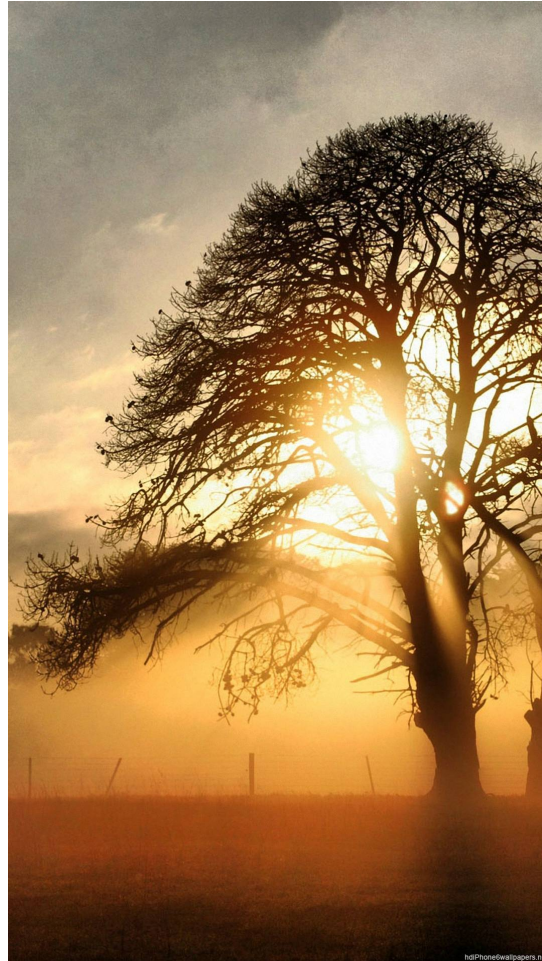
Your thoughts arise on a moment-to-moment basis because of your *vasanas*, but it is a mistake to think that you can do nothing about them. You can be interested in them, or you can ignore them. If you show interest in them, they will persist and you will get caught up in them. If you ignore them and keep your attention on the Source, they will not develop. And when they don't develop, they disappear.

In *Who Am I* ? Bhagavan compared this process to laying siege to a fort. If you cutoff, one by one, the heads of the thoughts as they come out of the fort of the Mind, sooner or later there will be none left. The way to do this is by Self-Inquiry. As each thought rises, you ask yourself, "To whom does this thought appear ?"

If you are vigilant in doing this, the forest of thoughts will lessen and lessen until there are none left. When the thoughts have gone, Mind will sink into its Source and experience that Source.

Little conversations may be going on. A crowd of people may be congregating around. None of this is your business, but there is always a possibility that you will get interested in some or all of these activities and forget the reason why you are out on the street yourself. Don't get excited by anything you see and hear. Just walk steadily towards your destination. Your *vasanas* are all the sides how's in your head that can drag your attention away from your main business, which is being aware of the Self. If you have no interest in them, you will walk straight to your goal. If something temporarily distracts your attention, bring yourself back by asking yourself, "Who is interested in all this ? Who is getting interested in this distraction ?" This will deflate the distracting desire and it will bring you back to an awareness of your true purpose. Remember, nothing that happens in the Mind is "you", and none of it is your business. You don't have to worry about thoughts that rise up inside you. It is enough that you remember that the thoughts are not you.

Whatever kind of thought arises, have the same reaction: 'Not me; not my business.' It can be a good thought or a bad thought. Treat them all the same way. To whom are these thoughts arising ? To you. That means that you are not the thought. You are the Self. Remain as the Self, and don't latch onto anything that is not the Self.



NMT (No-Me Teaching) new series 19:

Fine-Tuned Universe 12:

[In the unreal reflection called the "Universe", a product of an unreal Mind, even there, Infinite Intelligence is evident and inspiring.]

Astronomical Anthropism:

Just like Universe age, so is Universe size a pertinent parameter since a micro-Universe *only* as large as our Milky Way Galaxy with its thinly spread bundle of 100 Billion stars would only be a *month-old* baby *universe* with not near enough Time to evolve Carbon, never mind Intelligent Life. Nor would the intensely high Temperature of such a young Universe be hospitable, for more than *radiative* warming matter, the tremendous later cooling accompanied what Thermodynamics calls *adiabatic* expansion.

Too young, and the Universe has too few radioactive atoms, too old and they have decayed. Yet our Earth's depends on radioactive heat to melt *magma*, creating spouts and

volcanoes where Life could start, sliding continental tectonic plates, and various other geophysical and geological phenomena so much a part the history of Life on Earth. The same timing and resulting radioactive heat keeps the *liquid outer core* of molten iron in the motion that creates the Earth's magnetic field (*deflecting Life destructive and atmosphere stripping ions from the Sun; Mars lacking same, lost its atmosphere*). Similar protection from comets and asteroids is afforded by the Atmosphere (*check out the Moon's craters*) that early Life oxygenated, thanks again to volcanic spewing of Oxygen and Hydrogen (*for which we can also thank for Oceans and fresh water*). Life threatening (*ask the dinosaurs*) comets and asteroids (*but an Armageddon-movie asteroid only every Billion years, though a Civilization-killer every 10 millennia, mass starvation from small-nuke-like impact every millennium on average*) are even more so deflected by another *Anthropic parameter* in itself, the god of heaven, Jupiter (*plane that is*) whose gravitational well (far more than its cross-section) shield Earth from these impacts. \

There are many other Astrophysical *Anthropic coincidences*, but to name just one for now, consider the single large satellite Moon (*almost a double planet pair*). The Moon's Gravity not only provides *possibly necessary* Tide Pools for Evolution, but more arcanelly moderates Climate Change (*until the Industril Revolution fossil fuel burn-off, that is*). There are necessarily Resonances between the Earth-axis Precession rates and Gravitational tweaking we feel from other masses in the Solar System. Normally this common-enough situation for Earth-like planets would produce chaotic evolution of the Tilt of the planet's Rotation Axis with respect to the orbital plane of the planets, (*This is the orbital plane we see here except for Pluto which correspondingly was demoted to more like a comet*). But erratic Tilt changes would result in Temperature and Ocean level swings (*like the one we fear we have anthropogenically initiated at this point*). Our GHG's & Global Warming aside, we have been *Anthropically* spared oscillating Climate chaos by the dampening effect of the unusually large Moon's Gravity (*for Earth's size that is, since comparable moons of Jupiter and Saturn are small relative to those great planet sizes*).

While poets may have wondered at Life within a vast, cold, dark Universe, Life actually could *only* evolve in a vast, cold, dark Universe. John Barrows in his *Constants of Nature* compares the best lab-vacuum (*a Trillion atoms per cubic meter*) to that of Space if across the 10 Billion cubic light-year Universe, we spread out the Galaxies evenly, then spread the Stars, then the Planets, and then the Atoms. There would only be a single Atom per cubic meter (*as compared to a lab-vac Trillion*). Now there are a Quintillion cubic meters in a cubic light-year and there would only be a single 100-billion Star Galaxy per 10 Million cubic light-years. Considering on the other end of the scale, the incredible emptiness of Atoms, and even of Nucleons (*relative to quark "size"*), the World is very empty indeed (*never mind General Relativity and Quantum Theory that rob such sparse Matter of all the rest of its apparent "substantial-ness"*).

And yet the *Holderness Number* from Neuro-anatomy suggests a physical interconnection possibility which is said to “count” the number of possible “thoughts” (*in a Physicalist brain anatomy*). This dwarfing Cosmological Numbers becomes:

$10^{70,000,000,000,000}$ (or a 1 with 70 Trillion zeroes after it)

Even outside *Physicalist* boundaries, Mind by any description reveals a “vastness” of its own. Then again QND sees Mind as the faintest reflection of pure Consciousness, whereas UQND admits if neither Mind nor Universe but leaves all the vastness in Consciousness itself. Through various degrees from Objectivity to Subjectivity, the Universe is cast as a projected Analog of Consciousness.

Some more selected verses from the other Maharshi disciple:

You should trust the Guru because his interest is in showing you the Truth. He may occasionally say things that are not true, but he will say them only because he knows his words will push you in the right direction.

I once heard a story that illustrates this. A rich man used to meditate once in a while. He had a Guru, an enlightened man, who used to tell him, "You are not the Mind or the Body. You are the Self. Always abide as the Self." The man would listen attentively, but neither his meditation nor his Guru's words had much of an effect on him. One day he approached his teacher and said, "You have been telling me for years that I am not the Mind and the Body, and that I am the Self. I believe it and I meditate on this, but I don't see any changes in myself. This must be a very difficult technique because I don't seem to be making any progress with it."

The Guru said, "Let me look at your palm. I may be able to see something that is more suitable for you." After examining the disciple's palm, the Guru's face dropped. "This is very bad. You should have put in more effort earlier in your life. I can see that you only have about one week to live. There's not much that can help you now."

The disciple was shocked. He went home thinking, "All my wealth and businesses are useless to me now. I put too much time into them, and not enough into my spiritual practice. There's nothing I can do now, but I can at least spend my last few days meditating." He went home and told his wife, "My life is coming to an end. My Guru has warned me that this is my final week. I am going to spend my last few days meditating alone. Please tell my friends and relatives that I don't want to be disturbed." After a few days his Guru came to see how he was getting on.

"How's the meditation going ?" he asked. "Your wife tells me that you have done nothing else for days." "Gurudev, there is no one left to meditate. I have found the Peace you have been talking about all these years."

The Guru knew that this man would never focus full-time on realizing the Self because he was too caught up with his family and his business affairs. By making him think that his Death was imminent, he made him concentrate on what was real and important. And it worked. This is not just a story; it is a tactic that will work for anyone. If you can withdraw energy from your worldly attachments and instead focus full-time on the Self, you will soon get results. If you are having trouble with your enthusiasm for *sadhana*, just tell yourself, "I may be dead in 7 days." Let go of all the things that you pretend are important in your daily life and instead focus on the Self for 24 hours a day. Do it and see what happens.



NMT (No-Me Teaching) new series 21

Fine-Tuned Universe 14:

[In the unreal reflection called the "Universe", a product of an unreal Mind, even there, Infinite Intelligence is evident and inspiring.]

Fundamental Constants:

Some common abbreviations for Constants of Physics are the grist for the *Anthropic* mill:

$$G = a_G = \text{Gravitational coupling} = 6.6738 \times 10^{-11} \text{ m}^3/\text{kg s}^2$$

$$c = \text{vacuum light-speed} = 2.998 \times 10^8 \text{ m/s}$$

$$h = \text{Planck's Action constant} = 6.626 \times 10^{-34} \text{ J s}$$

which including spherical geometry becomes:

$$\hbar = h/2p = \text{reduced Planck's constant} = 1.0546 \times 10^{-34} \text{ J s}$$

$$\epsilon_0 = \text{vacuum permittivity} = 8.854 \times 10^{-12} \text{ F/m}$$

$$k_B = \text{Boltzmann's constant} = 1.38 \times 10^{-23} \text{ J / K}$$

$$k_e = \text{Coulomb constant} = 1/4\pi\epsilon_0 = 8.98755 \times 10^9 \text{ kg m}^3/\text{s}^2\text{C}^2$$

$$\alpha = \text{Fine-Structure E-M force coupling} = k_e e^2 / \hbar c = 1/137.0356$$

$$\alpha_s = \text{Strong nuclear force coupling constant} @ 1$$

$$\mu = \text{Proton-Electron mass ratio} = m_p / m_e = 1,836$$

The latter 3 are the best known of the important *dimensionless* constants with great claim to fundamental validity. A distant second group might be the elsewhere mentioned Planck units, such as:

$$t_p = \text{Planck Time} = \sqrt{\hbar G / c^5} = 5.391 \times 10^{-44} \text{ s}$$

$$L_p = \text{Planck Length} = c t_p = 1.616 \times 10^{-35} \text{ m}$$

$$T_p = \text{Planck Temperature} = \hbar / (k_B t_p) = 1.417 \times 10^{32} \text{ K}$$

$$M_p = \text{Planck Mass} = \hbar / (c^3 t_p) = 2.1765 \times 10^{-8} \text{ kg}$$

$$A_p = \text{Planck Area} = L_p^2 = 2.612 \times 10^{-70} \text{ m}^2$$

$$V_p = \text{Planck Volume} = L_p^3 = 4.224 \times 10^{-105} \text{ m}^3$$

$$D_p = \text{Planck Density} = M_p / V_p = 5.155 \times 10^{96} \text{ kg / m}^3$$

$$p_p = \text{Planck Momentum} = M_p c = 6.525 \text{ kg m / s}$$

$$E_p = \text{Planck Energy} = M_p c^2 = 1.956 \times 10^9 \text{ J}$$

$$F_p = \text{Planck Force} = E_p / L_p = 1.21 \times 10^{44} \text{ N}$$

Taking up a few parameters as an initial example, Barrows mentions that with the *Fine-Structure* Electro-Magnetic force coupling constant larger, Atoms could not exist. If this value of α , the reciprocal or 137 should be that of 136 or 138, the change in Atoms would not allow DNA replication or proper Protein folding.

With Gravity's coupling constant G larger, among other things, stars would burn their fuel too quickly. Weaker Strong nuclear force coupling constant α_s would prevent Biochemistry, among other ways, for lack of Carbon. So much is common sense when you think about it. Ancient Greeks and others saw the curved shape of the horizon on the Mediterranean Sea and saw immediately that the Earth was a large sphere 2 millennia prior to Columbus. Edgar Allen Poe understood that the dark night sky meant that the Universe must be expanding decades before Physicists worked it out. Other wise there would be a star between every other pair and the night sky would show broadly continuous light. Some Asian Sages, many millennia ago questioned: Who / What am I who knows the Mind like an Object? I can be no other than Non-Dual Consciousness. Some get it, others only later on.

Some more selected verses from the other Maharshi disciple:

If you remain as the Self, no *vasanas* and no karma will touch or affect you. If you remain in the Mind, thoughts of one sort or another will bother you all the time. If the thoughts "I should meditate" or "I should realize" arise, ask yourself, "To whom are these thoughts arising?"

Why do you need to think about your Body and your Mind so much? If you are the Light, there is no Darkness. If you are the Self, there is no thought, no Body, and no Mind to give you any trouble. Any number of thoughts may come. Let them. But remember all the time, "I am the Self."

You are not the *vasanas*, you are not the thoughts, you are the Self. Keep that awareness and don't worry too much about what is going on in your Mind, and what it means.

Don't allow any mis-identifications to settle on you. Don't think, "I am sitting here." Don't think, "I am doing, I am acting, I am sitting." You are the Self, not the Body. Even your *vasanas* are the Self. All is your Self. There are no distinctions, no differences in the Self. Nothing is separate from the Self. You cannot find a single atom, a single thought that is apart from the Self. All is the Self. All these doubts that are troubling you arise simply because you are enmeshed in the "I am the Body" thought and all the confusing consequences that it brings. It is more productive to keep the awareness "I am the Self" than to be analyzing the usefulness of effort. *Sadhana*, effort and practice, and any ideas you may have about them, are concepts that can only arise when you believe that you are not the Self, and when you believe that you have to do something to reach the Self.

Even the sequence, "To whom has this thought come ? To me," is based on ignorance of the Truth. Why ? Because it is verbalizing a state of Ignorance; it is perpetuating an erroneous assumption that there is a person who is having troublesome thoughts. You are the Self, not some make-believe person who is having thoughts. If you remain in the Self, as the Self, no harm can come to you. In that State, whatever comes to you will not be a problem. There is no Duality when you remain as the Self; no thoughts about what you should or should not do, and no thoughts about what can be done or what can't be done. The main thing is not to go out of the Self. When you have switched on the light, darkness cannot come, not even if you desire it.

When this thought, "I am not meditating," or "I am not in the Self," arises, just ignore it and go back to the Self. When thoughts such as these arise, look at them and think, "Not me, not my business," and go back to the Self. Don't waste energy on thinking or evaluating how well or how badly you are doing in our meditation. Whatever thoughts come, ignore them. You have to ignore anything that is connected to the Body-Mind idea, anything that is based on the notion that you are the Mind or the Body. If you can do this, the rising thought will not disturb or distract you. In a split second, it will run away. All thoughts are distractions. including the thought "I am meditating."

If you are the Self, darkness will not overcome you. Whatever thoughts arise in that State won't affect you. If you are the Self, no destiny will affect you. If you tear your shirt, does that mean that you are also torn ? No. Something has happened to something that is not you. Similarly, the Body and the Mind will experience pleasure, happiness, misery, and so on, all according to the *karma* that has been brought into this life. But the Self has no attachment, no detachment, no happiness, no unhappiness and no *karma*.

The Body is not the Self; the Mind is not the Self. The real "I" is the Self, and nothing ever happens to or affects the Self. Thoughts will come as long as the potential for them is inside you. Good thoughts, bad thoughts, they will all keep coming. There is nothing you can do about this flow, but at the same time, this flow of thoughts need not be a

problem. Be the Self, be the Peace that is your Real Nature, and it will not matter what comes up.

Walk, eat, drink, sleep, meditate, but never think that you are the one who is doing these things. The thought that you are doing something is the thought that is poisoning your life. Because once you think that you are doing something, you will start to think that you need to be doing something else to put yourself in a better situation. You don't have to do anything to experience the *nectar* of the Self. All you need to do is drop the idea that you are doing anything at all. You need to change your vision, your perspective.

When you live in the Mind and see a World outside you that is separate and apart from you, you will make plans, you will worry, you will have doubts. These doubts keep coming up in you because you are not dwelling in the Source, the Substratum. In that place there is Oneness, a Oneness in which all distinctions, all separation is absent. If you abide as the Self, you will see the World as the Self. In fact, there will be no World at all. No World, no *Maya*, no Mind, no distinctions of any kind.

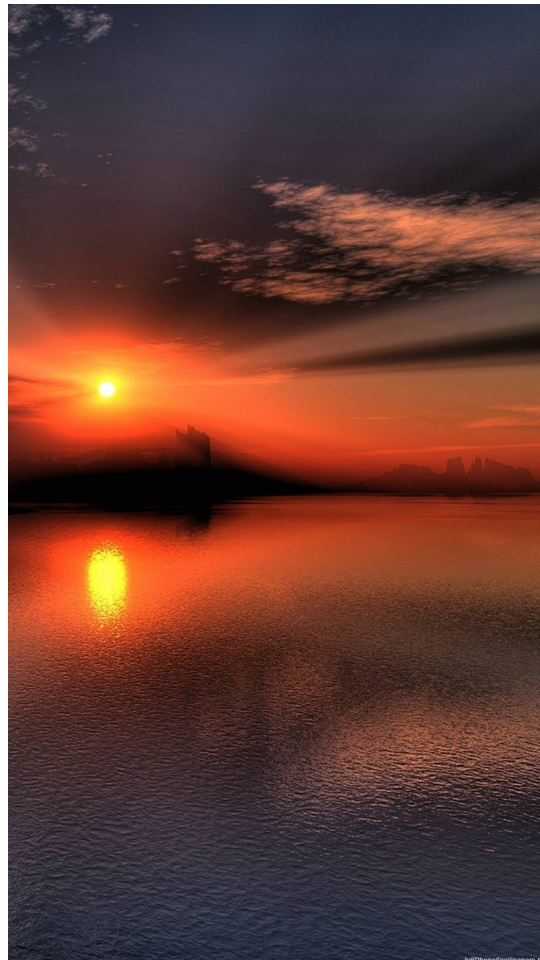
It is like the state of seeing only wood in the carved *elephant*, only threads in the dyed cloth. In that state of being and knowing the Self, ideas of right and wrong, things to do and things to avoid doing, will vanish. You will know that they were just mental concepts. In that state you will know that Mind is the Self, Bondage is the Self, everything is the Self. With that vision, nothing will bind you; nothing will cause you misery. The Self may appear as the manifest World, as different separate objects, but the underlying Reality, the only real substance is the Self in which they are all appearing and disappearing. Things and people may appear in this Substratum, and you may use them or interact with them, but your Peace will never be disturbed.

When you abide as the Self, there is no one left to choose and decide. Life goes on automatically. You will pick up the things that are needed, and not pick up the things that are not needed. What you pick up and what you don't pick up will not be a consequence of what you like or dislike. These preferences will not be there any more. This perspective will be yours when you give up or cease to believe the idea "I am different from the World'. Giving up this thought is a great sadhana in itself. Abandoning this false idea will be enough to give you Peace. When the thought is there, the World seems to be full of good people and bad people, all busily engaged in doing what appear to you to be good things and bad things. When the thought is absent, you know them all to be your own Self. In that state you won't like them, dislike them or judge them, or be aware of them as being other than your own Self. This absence of likes, dislikes and judgments will leave you in your original natural state of

Peace. Teeth and tongue are both parts of you, and they both function in harmony, without fighting or struggling. When there is the knowledge that Mind and Self are one, there will be no fights, no struggles, and no attempts to judge or attain. To have this Harmony, place the Mind in the Self and keep it there. This is the real meditation. _ However, until you reach this State in which there are no distinctions and preferences, you should use a little Discrimination with regard to who and what you associate with.

Avoid bad company and bad thoughts, and try to keep the conviction that nothing is separate from you. During sleep you have no likes and dislikes. *Jnanis* and babies manage this while they are awake. Baby mind is good; *jnani* mind is good; "I am the Body" Mind is very, very bad.

The "I am the Body" thought is just as poisonous as a cobra. "All is my Self. All is the *nectar* of my own Self." These are the great affirmations that counter the "I am the Body" thought. Holding on to one of these sayings is the equal of millions of *punyas*. If we continuously meditate on the Truth of these statements, if we hold on to the Truth that they are pointing towards, countless *punyas* will accrue to us.



NMT (No-Me Teaching) new series 23

Fine-Tuned Universe 16:

[In the unreal reflection called the "Universe", a product of an unreal Mind, even there, Infinite Intelligence is evident and inspiring.]

Dimensionless Constants:

To Fred Hoyle's C^{12} & O^{16} nucleo-synthesis scenario, Barrows and is once co-author Frank Tipler and others went on to point out the existence of Intelligent Life allowed only narrow ranges for fundamental Force strengths, masses of various elementary particles, and the like. Beginning in alphabetical order (*Greek alphabet*), we consider further the Electro-Magnetic force coupling constant, the *Fine-Structure* constant **a** approximately equal to $1/137$ – a strong determinant of Atomic & Molecular structure, and therefore Biochemistry and Life. Next in that same (*Greek*) alphabetical order comes the likewise Dimensionless Constant **b** = M_e/M_p which is the ratio of Electron to Proton masses, approximately = $1/1836$. This latter **b** increased a bit prevents Electrons occupancy of well-defined quantized positions so necessary for the subtle Biochemistry of DNA for instance. On the Cosmic scale, if the Denominator in **b** should increase *ten-fold* resulting in a value near $0.005 = 1/2\%$ which happens to approximate **a**² then Star would not form. With **a** this same ratio **b** coordinates to allow the nuclear fusion that fuels Stars and leads to heavier elements. But **a** itself is constrained to far narrower bounds. The **a** = $1/137$ value or about (*7 thousandths*) necessarily lies between $1/180$ & $1/85$ or (*6 – 12 thousandths*) if Protons are not to decay long before Stars could form. *Fine-Tuned* as the Constants are now, no Proton has ever been seen to decay, they may be eternal. Likewise, another Dimensionless Constant describing the Strong nuclear force, **a_s** ~ 1

For the prior range of **b** & **a** (to the left) ordered Organic and Biochemical structures could not exist. Further on (*to the right*) there could not even be any Stars. A similar overlapping net-narrow range (*~ compounded conditional probabilities*) is seen after we plot the Strong nuclear coupling force constant **a_s** vs. interconnecting values of **a** as depicted below.

Once again we restrict the plot to allowed values and find: slightly diverging values include “regions” of comparative values where “diprotons” (*a He² with no neutrons*) would have formed instead of the important intermediate Deuterium (*a Hydrogen with one neutron*) and subsequent fast-burn of Stars and absence of Carbon and other vital Atoms. These graphical devices allow a visual sense of how 2 partially-dependent / partially-independent variable couples can be focused down to a minute overlapping range (*~ compounded conditional probabilities*) as seen for some of the fundamental

Constants. When a dozen or more coordinate like this together the pin-point *Fine-Tuning* stands out as an extremely incredible *coincidence*. More examples will be offered.

Curiously John A. Wheeler (*who promoted Einstein's unpublished equation not only of $E = mc^2$ but also Gravity-Mass with Space-Time*) proposed a PAP *participatory anthropic principle*, a super-strong SAP that calls upon Observer-dependent Quantum Theory (*Copenhagen II Convention*) to make Observers necessary for collapsing the Wave Functions of the Universe into physical existence. Barrows and most others dismissed this PAP out of hand (*though it is an insightful attempt to physicalize QND*), often erroneously by claiming that Scientific Instruments qualified as Observers in Quantum Theory. But that blurring of the definitions is directly countered by the *Schrodinger's Cat* gedanken experiment and John von Neumann's Chain of Measurement. In that finer detail, the Instrument is but another Object and its information is actualized only when a conscious Observer reads that Instrument.

Some more selected verses from the other Ramana Maharshi disciple:

Your thoughts arise on a moment-to-moment basis because of your *vasanas*, but it is a mistake to think that you can do nothing about them. You can be interested in them, or you can ignore them. If you show interest in them, they will persist and you will get caught up in them. If you ignore them and keep your attention on the Source, they will not develop. And when they don't develop, they disappear.

In *Who Am I ?* Bhagavan compared this process to laying siege to a fort. If you cutoff, one by one, the heads of the thoughts as they come out of the fort of the Mind, sooner or later there will be none left. The way to do this is by Self-Inquiry. As each thought rises, you ask yourself, "To whom does this thought appear ?"

If you are vigilant in doing this, the forest of thoughts will lessen and lessen until there are none left. When the thoughts have gone, Mind will sink into its Source and experience that Source.

Little conversations may be going on. A crowd of people may be congregating around. None of this is your business, but there is always a possibility that you will get interested in some or all of these activities and forget the reason why you are out on the street yourself. Don't get excited by anything you see and hear. Just walk steadily towards your destination. Your *vasanas* are all the sides how's in your head that can drag your attention away from your main business, which is being aware of the Self. If you have no interest in them, you will walk straight to your goal. If something temporarily distracts your attention, bring yourself back by asking yourself, "Who is interested in all this ? Who is getting interested in this distraction ?" This will deflate the distracting desire and it will bring you back to an awareness of your true purpose. Remember, nothing that happens in

the Mind is "you", and none of it is your business. You don't have to worry about thoughts that rise up inside you. It is enough that you remember that the thoughts are not you.

Whatever kind of thought arises, have the same reaction: 'Not me; not my business.' It can be a good thought or a bad thought. Treat them all the same way. To whom are these thoughts arising ? To you. That means that you are not the thought. You are the Self. Remain as the Self, and don't latch onto anything that is not the Self



NMT (No-Me Teaching) new series 25

To Jupiter, and beyond the Infinite.

"2001" movie

To Infinity, and Beyond ! Buzz Lightyear, Pixar character & toy "of the decade"

Fine-Tuned Universe 17:

[In the unreal reflection called the "Universe", a product of an unreal Mind, even there, Infinite Intelligence is evident and inspiring.]

Intelligent Design regarding the nature of Life and ourselves in the Natural World had long been dismissed by Wallace-Darwin Evolution. The Deist counter-statement that Evolution itself seemed Fine-Tuned and could be the tool of a Designer pretty much falls on deaf ears. Such a speculation is not Fundamentalist enough for the religious, and is felt to beg the question for Atheist Realists (as always fixed on the “reality” of Matter, rather than an open-minded quest for ultimate Reality). But for more deeply thinking philosophers, the unaccounted for Laws of Nature were not in themselves an alternate Physicalist rationale. The above mentioned and many other Constants of Nature, the Universe’s initial boundary conditions, an numerous other Statistical accidents remained fortuitous or unexplained. The previously mentioned congruence of Nature with Mathematics furthermore continues to hint at linkage between the Universe and our own mental processes. QND of course explicitly declares the World to be a structure in Mind, discovered by concerted investigation, and dissolved by further Self-Inquiry. UQND asks whether it ever happened, where is the World in Deep Dreamless Sleep, what Universe is there for us after death?

Eventually more (though still a small minority) of Physicists went on the record, demanding a closer look at Anthropic coincidences.

The more I examine the Universe and study the details of its architecture, the more evidence I find that the Universe in some sense must have known that we were coming.

Freeman Dyson

Brandon Carter the first to use the term Anthropic Principle is framing his own, which in particular was a WAP weak anthropic principle (this Universe was necessary for us to be here, but we were not necessary, nor did we necessitate as in a SAP strong anthropic principle):

What we can expect to observe must be restricted by the condition necessary for our presence as observers.

Brandon Carter’s WAP

Carter amended what he soon felt was a regrettable term Anthropic preferring instead Self-Selection Principle later discussed her by Nick Bostrom as the SSA self-selection

assumption. Further scrutiny of the coincidentally Fine-Tuned constants of Nature led Carter to cautiously put a SAP strong anthropic principle on the table without fully signing on to it:

The Universe (and hence the fundamental parameters on which it depends) must be such as to admit the creation of Observers within it at some stage.

Brandon Carter's SAP

It is of course always Philosophically possible – as a last resort, ... by thinking in terms of a “World Ensemble”. By this I mean an ensemble of Universes characterized by all conceivable combinations of initial conditions and fundamental constants ... The existence of any organism describable as an Observer will only be possible for certain restricted combinations of the Parameters.

Brandon Carter

In other words, if the Constants were somehow “in the plan” and they seem so precisely fitted to us, then perhaps we were in the plan, maybe even as the “reason” the Constants were as they are. For Physicists, the “way out” was to restate the Ensemble hypothesis, multi-verse, etc. such that no SAP need be entertained. WAP's combined with a virtually infinite number of universes probabilistically guaranteed our unlikely fortuitous universe due only to random Chance.

This idea provokes a serious consideration of the idea that there exist other “universes” which possess different properties and different constants of Nature so that we might conclude that we find ourselves inhabiting one of the possible universes in which the Constant and Cosmic Conditions have fallen (like dice by chance) out in a pattern that permits Life to exist and persist – for we could not find it otherwise.

John Barrows' summary of revival of the "Ensemble"

We will not be able to explain these coincidences by the fact that we live when the Universe is several Billion years old, in conditions of relatively low Density and Temperature (Dicke's answer to Dirac and explanation for the striking Large Numbers). Barrows indicating Coincidences beyond Large Numbers.

Another SAP considered by most Physicists to be “outlying” is the FAP final anthropic principle proposed by Barrows & Frank Tipler, a teleological, Teilhard de Chardin-esque vision of Life possessing and externalizing the Universe (perhaps an attempt to physicalize mystical Christianity). Throughout the rear-window retrospectives our logic is often enough caught in a syndrome too evident in so many movies, for It's a Wonderful Life through Back to the Future and beyond.

More political alternate-histories themes are seen again in films like *Red Dawn* and novels like Sinclair Lewis' *It Can't Happen Here* and Robt. Harris' *Fatherland* which was also depicted as a TV movie.

Gathering of heavy water (Deuterium oxide) for nuclear technology, quicker V2 rocket development, decoding D-Day, various turning of the tide could have seen Hitler victorious. Then what? Many such questions can always be asked.

James Burke in his documentary-collage series attributes modern civilization to Plague which concentrated the wealth for later investment and left mountain of unwanted used underwear use for fiber in the fine paper that inspired Gutenberg's printing press and therefrom the Computer Age.

Industrialism is due to modern science, modern science is due to Galileo, Galileo is due to the fall of Constantinople, the fall of Constantinople is due to migration of the Turks, the migration of the Turks is due to desiccation of Central Asia. Therefore the fundamental study in searching for historical causes is hydrography. Bertrand Russell

After all, somebody's bound to win the Lottery; after all, at any given moment, something has to happen. Why not me; why not this? The possible though accidental significance of each false & true step in the sequence of things can be construed as delicately and critically essential to every arbitrary outcome. But could not somewhat different outcomes do the trick? Cannot other routes come to much the same place?*[1]
With a little discrimination and a little disdain for mere numerology, we can still find truly remarkable coincidence in the Constants, Law, Structure, and Sequences of Nature.

Some commentary on Ramana Maharshi's teaching:

Bilva:

There is a pious Indian tale, associated with the practice of Devotion & Self-Surrender. But therein is an *attitude* that can be helpful to all, regardless of their manner of spiritual practice. Two *yogis* sit beneath a tree, perhaps a sacred *Bilva* tree. By some Grace, they are both blessed with a vivid vision of the Lord, be it *Vishnu*, *Shiva*, what ever form was most dear to them. The Lord happened to know that they were both thinking, & even discussing, the question: "How long until Liberation?"

To respond to this query, the Lord points to the *Bilva* tree & says: "The number of leaves on that tree happens to be the number of lifetimes remaining to each of you, lifetimes to practice, & eventually become Liberated.

One Yogi, impatient & more entangled in Ego, as opposed to complete Surrender to God, responds: "Oh no, that many more lifetime still ! I've been practicing so hard, & still there is that far to go ?"

The 2nd Yogi, in whom was a more pure state of Mind, responds quite differently: "Just that many lifetimes ! (*perhaps 1000, perhaps 10,000*) I can see the number now ! Oh praise be to God ! Liberation is certain, & I can see it coming.

At that point the Lord turns to the 2nd Yogi & says: "By that Surrender you are now immediately Liberated."

The take away for any of us is to realize that Liberation is certain, to take heart, to not measure or demand, & to practice as hard as we can. What else is there to do ? Leave it to God, to *Brahman*, to settle our destiny. Ours is only to practice & not to take anxious thought for our individual success. The selfless gratitude of the 2nd Yogi is clearly the one to maintain.

It may be, that with the Guru's Grace, Liberation can & will be attained in this lifetime. But no further measuring or anxious thought is really of use. If anxious, it should only be being anxious to increase the Intensity of our practice, for that is all that the seeming Individual can do for himself or herself.

Consciousness:

We are to question & doubt our existence as a separate individual & the reality of the in order to appreciate Non-Duality. The one fact whose reality we cannot doubt is our own Existence. We know "I exist" by & in Consciousness. That Consciousness is one undeniable truth & so is identical to the Knowledge: "I exist". Our Consciousness is as undeniably real as our own Existence. This Consciousness always knows its own Existence. That is the *subjective* Knowledge: "I exist". Seeming *objective* knowledge of other things, as thought, is Mind.

Mind is a dualistic *superimposition* on Consciousness, upon the Knowledge: "I exist". The Mind rises identifies itself with a Body, thinking "I am the Body". The 5 Senses of that Body proceed to perceive a World. The Mind's identification with a Body is equivalent to seeing a World. Whatever might be the nature of a Body, the immediate difficulty is actually with the thought "I am a Body", "I am the Body". "I", of a non-physical nature, specifically of Consciousness, cannot be a Body. In fact, it can furthermore be shown that one is *not in* a Body, in fact does not even *have* a Body. Taking it one step further would be to note that there is no such thing as a Body.

By identification with a Body, the Mind appears as is a limited *subtle* form in Consciousness. Ramana Maharshi called Mind a phantom, the Ego which is neither the Consciousness "I exist", nor a physical form thought of as a Body, with the feeling "I am the Body".



NMT (No-Me Teaching) new series 27

Fine-Tuned Universe 19:

Simplest Fundamental Constant:

Taking for discussion the classic Big Bang model (though other models support the same discussion in other ways), we see Space–Time of any number of Dimensions potentially arising out of the originally pea-sized initial Universe, with possibly 11 non-temporal

String Dimensions overall. We discuss elsewhere the “curled-up” unmanifest quality of all non-temporal Dimensions beyond the ordinary 3-D Spatial Dimensions, and more comments immediately follow. Focus on 3-D in the most ordinary sense, this $D = 3$ is itself considered a fundamental, even Anthropic constants. Any 2-D World could not support the complexity of Life, and any 4-D or higher dimensional Space would host a Universe too unstable to support Life.

Let us assume that the 3 Dimensions of Space are visualized in the customary fashion [but all tinted blue], and let us substitute another color [e.g. red] for the 4th Dimension. [The Matrix cued VR scenes with dark green overtones, contrary to the bluer hue of “physical reality.”] Every physical Object is liable to change in color as well as position. An Object might, for example, be capable of going through all [mixed] shades from blue through violet to red. A physical interaction between any 2 bodies is possible only if they are close to each other in Space as well as in color [redness marking distance in a 4th Dimension]. Bodies of different colors would inter-penetrate each other without interference ... If we lock a number of flies into a red glass globe, they may yet escape [if they are blue] ... able to penetrate the red globe.

Hans Reichenbach of the Berlin Circle (comparable to the Vienna Circle) Higher Dimensions:

As much as $D = 3$ is an Anthropic parameter, the number of Space Dimension along with a single Time dimension, String Theory speaks of 8 other Spatial Dimensions compacted [as discussed elsewhere in this book] and unmanifest. Reichenbach’s hypothetical 4th Dimension alluded to above has a Spatial quality, but the Analogy could be applied just as well to the Time dimension. If a globe does not exist or stay closed in a Past or Future Time, then a fly who could Time-travel, or one we are considering to exist at another Time, can “escape” the globe which no longer constrains at that other Time [is not red or whatever].

Considered Spatially, Reichenbach’s 4th Dimension could be a now-manifest String Dimension much like a 3rd Dimension would be to 2-D flies constrained to a 2-D table-top. A fly who could soar into a 3rd Dimension “above” the 2-D table-top could “escape.” The crude Christianized post-edit graphics inserted into the Patrick Swayze movie Ghost showed “minions of Hell” arriving and taking away a sinner into “another dimension.” They simply “got smaller” and somehow “more distant” like the image of train retreating down the track. As they shrunk into nothingness, so would a fly “escaping” into a 4th Spatial String Dimension.

Some more selected verses from the Ramana Maharshi disciple, Master Nome:

In Self-Realization, all notions about the Absolute & the Self are relinquished. Notions about the Absolute are such as that it is separate from oneself, or objective, & that it is always-present. Notions about the Self are such as that it is endowed with Form, minuteness, that it is changeful, material, embodied, defined by thought, in Time, or endowed with Individuality. For Knowledge, the superimposition of the jiva-hood (concept of individuality) is removed from Atman (the Self) & Isvara-hood (idea of the Lord God) is removed from Brahman (the Absolute). Upon removal of such superimposition, or Ignorance, one realizes the Identity, as declared in the Upanishad, Tat tvam asi (Thou art That). If the Self remains undefined, it is only Brahman, & That alone. Therefore, one should know the Self.

The Knowledge of Reality, which is the Realization of the Self & the Realization of the Absolute, is attained by the direct path of true Knowledge. By liberating oneself from the mis-identification with what is not the Self, one knows the Self. When the Real Nature of what has been considered as the non-Self is seen, it invariably proves to be non-existent, for such non-Self was dependent upon mis-identification in order to even ever appear.

Blissful & Eternal is the Real Self. One should regard only that which has no beginning or end, is ever existent, is unchanging, is transcendent of all that has Form, of all that changes, & all that is in Time. The Self is also continuous & undivided as Real & one's own true Being. By this Knowledge, one abides in the Natural State, which is the only True State of the Self. The Self may be said to call unto itself, as the Sought & as the Seeker; as the Guru & as the disciple; as God & as the devotee. The Self seeks itself in meditation. The Self reveals itself as inner experience. The Self knows & abides in itself for blissful Eternity.



NMT (No-Me Teaching) new series 29

The 3 GUT [Grand Unified Theory: Strong & Weak Nuclear – Electro–Magnetic] forces are indistinguishable until a Trillionth second old Universe at a now chilly Quadrillion degrees back when Magnetic Monopoles of a Quadrillion Proton masses were knotted lines in Space.

Fine-Tuned Universe 21:

Cosmological Constant:

Lambda, capital L, lowercase l is a symbol appearing in Einstein's modified Field Equation used in his formulation of General Relativity:

$$R_{mn} - \frac{1}{2} R g_{mn} + L g_{mn} = 8\pi G/c^4 T_{mn}$$

He rescinded this “fudge factor” as his self-styled “greatest mistake”; but later it was widely embraced as a Cosmological Constant, especially when described in terms of Omega, capital W_L , a ratio of the Energy Density “due to the Cosmological Constant” to the Critical Mass Density of the Universe and the corresponding influence of Gravity. Martin Rees in his *Just Six Numbers*, similarly called this $1 = W_L$ while he reserved “plain” Omega, capital W or lowercase w as a measure of the “amount of Matter in the Universe” determining the relative importance of Gravity and the Universe’s Expansion Energy. Specifically the Rees W , $w =$ the Universe’s actual Mass Density to the Critical Mass Density which matches the Cosmological Constant Energy Density. So in Rees terms the High, Medium, and Low curves depicted above describe Open curved-out Expansion, critical Flat Expansion, and curved-in Collapse and these are linked to $W_L > 1$, @ 0.3, < 1. Slight differences and similarities confuse these related used of Lambda & Omega but Universe Expansion is the concern I each case.

- $N =$ ratio of the strengths of gravity to that of electromagnetism;
- $Epsilon (\epsilon) =$ strength of the force binding nucleons into nuclei;
- $Omega (\omega) =$ relative importance of gravity and expansion energy in the Universe;
- $Lambda (\lambda) =$ cosmological constant;
- $Q =$ ratio of the gravitational energy required to pull a large galaxy apart to the energy equivalent of its mass;
- $D =$ number of spatial dimensions in spacetime.

Fine-Tuning Itself:

Some of the small tolerances “allowed” (*for Intelligent Life*) have already been mentioned for a , a_s , a_G and so on. For Rees’ ratio $N = 10^{-36}$

(*for 2 Protons*), stated as 10^{-40} (Electron-Proton) by others, the “tolerance” is some 1 part in Millions.

The *vacuum energy* is beyond our scope, but a brief baby-step from elementary Quantum Theory may help for starters. Quantum Energy states ranging from high to low exhibit the *gnarly* character that any lowest state is quite precisely determined (in terms of frequency if talking about momentum, in terms of time if talking about energy, simply because the bottom is at the extreme low end, without so much wiggle room there. This precise level must therefore store highly *uncertain* Energy occupation across all quantum states, even in empty Space. The resulting fuzzy residuum of undetermined Energy, quite thinly disperse in Space and thus not to be harnessed, does however add up to a huge amount incrementally across the myriad portions of Space. This empty Space or Vacuum

Energy, first described by Dirac as *Zero-Point* Energy dwarfs the rest on the Universe
 Rest-Mass = mc^2 because the Universe is not empty.

Similarly critical are the Omega Expansion ratios (defined variously). In fact the Electron charge must match the opposing Proton charge to at least 1 part in a Sextillion. Many of the *Fine-Tuned* tolerances are of a similar sort, very long odds if Random. Some of the *Fine-Tuning* resembles not so much constraint to some narrow window as much as extreme removal to an extreme end, very high or low. Theoretical determination of the Cosmological Constant has been famously off the mark by a factor of 10^{120} . The huge 10^{100} too large theoretical repulsive negative-pressure of the *Vacuum Energy**[1] must be offset by counter-balancing attractive contributions to the Cosmological Constant, whether included with the speculative *Quintessence field* or otherwise.

In any case these are *Large Numbers* coming in again. Similarly, the distant-Future collapse of Matter in the Universe (*not the Lambda-Omega collapse of Space-Time itself*) in giant Black Holes segues to irradiative evaporation of those Black Holes over the course of 10^{100} years.

Rees' Q number determines *ripples* in the *smoothness* of the Universe, which at 10^{-5} compares to the *ripple* of a *tsunami* as high as a football field is long, coursing around the Earth's oceans, but seen from Space as infinitesimal on the scale of the planet, the un-smoothness *ripple* being only a $1/1000\%$ of the Earth's size, by analogy, or smoother than a cue-ball. But if Q were down to a 10^{th} of its value, Galaxies would never coalesce. If Q were larger, the Universe would be so "cluttered" Galaxies as to prevent us from estimating any value of Q at all.

Some more selected verses from the Ramana Maharshi disciple, Master Nome disciple:

The unknown Knower of all that is known, the Supreme Knowledge itself, Consciousness remains undivided by the *triad* of Knower, Knowing, & Known. Consciousness can never be a known or unknown object. Consciousness is the Witness of all, the only Knower. Consciousness, the Knower, is never defined by the Known. Consciousness, the Witness of every state, of all thought, is not defined by thought, nor contained in any state. The Witness is never known. Consciousness is ever non-objective. Consciousness is formless – with nothing objective within or without. Unknown, Consciousness alone is known. Not a *process* of knowing, Consciousness alone is knowing. Not a knower, Consciousness alone is the Knower, the unknown Knower of all that is known.

The removal of superimposition is accomplished by Self-Inquiry. This is the intention of the negation of the Upanishads, "neti, neti", "not this". Such indicates the negation of one's attributes, identity, or definition, of what is not truly the Self, not the essential Existence, or pure Consciousness. The removal of superimposition is the revelation of the

Truth. The Truth, or the Reality, is not newly created, nor did the superimposition diminish it in any way, just as the *snake* did not chase the *rope* away. But to see the *rope*, the Imagination of the *snake* must cease. Similarly, to know the Truth of the Self, Ignorance must cease.

True Knowledge is not experienced unless the prior ignorant conception is negated, just as the *snake* notion is destroyed to see the *rope*. The Self, of the nature of pure Consciousness, is self-existent & can never be negated. Egoism has its origin in Delusion & has for its *object* that which is only imagined. Its definitions are only thoughts. The discernment of “Not this, not this” negates the very existence of Egoism along with its origin, its effects, & its imagined object.

All qualities, gross (*physical*) or subtle (*mental*), ought to be negated from the Self, from one’s Identity. If one is to know the Self as it is, whatever be the qualities attributed to the Self, be they *physical* or *mental*, they are to be regarded as mere ornaments. These should not be regarded as the Identity of the one who “wears” those “ornaments” (*qualities*).

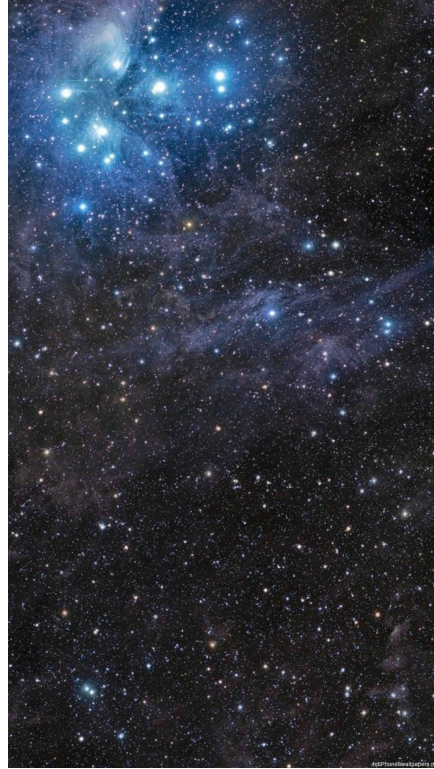
If one rejects all that is *objective* from one’s Identity, one comes to the conclusion that the Self is the Knower, free from all that is perceived & conceived. In the same manner as one relinquishes misidentification with the Body, & all that is *objective*, so should one sever the mis-identification with the supposed *subject*, which is the Ego.

The Self’s existence is independent of all & is different from all that is *objective*. The *objectified* “I” is the Ego. The superimposed *objective* portion of the “I” – consciousness should be abandoned, for it is not actually the Self. Negation of what is *objective* means also negation of the Ego. What remains is that which is implied in the aphorism: *Aham Brahmasmi* – “I am Brahman”. Only *Brahman* can be itself, *I – without – a – 2nd*. That is the only true “I”.

Brahman is unborn, immortal, imperishable, ageless, & all-comprehensive. The same Absolute *Brahman* appears, according to one’s understanding, as God, who is said to be the Lord who dispassionately dispenses the results of *karma*, or as the Witness, which is Consciousness in relation to all else, or the attributeless, eternal “I”, of the nature of the indivisible, non-dual, Being-Consciousness & which alone is *I – without – a – 2nd*.

The Self has neither rise nor set, is neither in darkness nor illumined, but is always the spiritual Light, with nothing material or mental in its nature at all. The distinction between the Self & oneself is due only to superimposition, which is like imagining different openings in a castle wall, for instance, to be different spaces, rather than perceiving the castle space itself. The Self is non-dual, *I – without – a – 2nd*. It is neither distinct nor in relation to anything else. For non-dual Existence means there is no other. There is, thus, no difference or non-difference, no oneness or manyness, & no separate

knower or doer or experiencer. The Self has nothing to accept or reject. And there is nothing, or no one else to accept or reject the Self. There is no one else to think the Self is, or that the Self is not. Such is the Truth regarding the Self.



NMT (No-Me Teaching) new series 31

Fine-Tuned Universe 22:

Multi-Verse Ensemble:

Most of what can be said about a *Multi-Verse* could similarly be applied to another kind of *Ensemble*, be it a serial, temporal Sequence of Big-Bangs alternating with Big-Crunches, *Quantum Mechanical Many-Worlds*, baby-universes bubbling of *M*-branes, Lee Smolin-esque *universe-born-at-every-Black-Hole-singularity*, Chaotic Inflationary *universe-islands* within one Big-Bang Universe, and so on. Standing in for all those (*with suitable verbal modifications understood*) the *Multi-Verse* of any kind immediately presents a shocking number for enumeration, requiring as heck of lot of *stuff*. Just because *so many* Physics parameters could be varied independently, the number of *all possible* combinations is staggering.

"*Universes* that drift like Bubble in the Foam upon the River of Time" Arthur C. Clarke

But only such an unprovable, purely speculative boondoggle rescues *Physicalism* out of the jaws of encroaching Design as the only other explanation for the extremely improbably *Fine-Tuning* of this Universe. Such there must be if this Universe was to support Intelligent Life, counting as part of this Universe, the many particulars of Astronomy, Geology, Geochemistry, and so on going into the make-up of planet Earth. Either it is a “set-up” or the “luck of the draw” from out of very many *straws* indeed.

If we could know that our own Universe was only one of an indefinite number with varying properties we could perhaps invoke a solution analogous to the principle of Natural Selection; that only in certain universes, which happen to include ours, are the conditions suitable for the existence of Life, and unless that condition is fulfilled there will be no Observers to note the fact.

biologist Carl

Pantin, *early 20th century Multi-Verse speuculation*

The hard-core *Many-Worlds* advocates split off new *universes* with every collapsed Wavefunction, with ever Observation by every Observer. These and others take the less extreme but still mind-boggling jump to *Ground-Hog Day* – like closely-parallel *universes* so that in the *Ensemble* or *possible histories* or whatever, “everything that could ever happen *does* happen somewhere, sometime.” Ockham’s *Parsimony* of restraint (*explain with as few moving parts as possible*) is way out the window here. Philosopher used to wonder at the *efficiency* of rare, or with-us solitary Intelligent Life in such a vast Universe. But how about the *efficiency* of a *kazillion* Universes?

But although the Constants of nature are Numbers, they are not just Numbers and they are not only Numbers. They are the barcodes of ultimate Reality, the pin numbers that will unlock the secrets of the Universe.

John Barrows

It is one thing, to offer an Analogy, to imagine the futuristic Computing Power that could fabricate a *Matrix*–level VR Simulation (*as ever here, discarding from the movie all body-vats, subterranean wars, A I – Architect self-programming program, Kung-Fu, the One, and so on*). But to imagine that “VR – Life-supporting” Simulation to be the result of random keystrokes, for a thousand monkeys or whatever, well that affords some insight in the *improbability* of our Universe and the enumeration of any *Multi-Verse* that could include ours as just an accident of Random Chance. Needless to say though, here an in all application of Math to the Universe (*as in just all of Physics*), a distinction must be maintained between an abstract Mathematical structure with predictable rules and some “physical reality” we cannot define or even experience except as a construct of the Senses. Applying any highly selected Mathematical stricture to the Universe is *special pleading* and the *Multi-Verse* heads the list.

Some more selected verses from the Ramana Maharshi disciple, Master Nome disciple:

The Senses are part of the Body. The Body is perceived only by the Senses & has no reality apart from them. Each of the 3 illusions depends on the other (~ bootstrapping Dependent Origination). Such (mutually inter-dependent) Illusion is like the painting of a wall that is painted on the wall depicted when the wall itself has not yet been built. [Contained in that comment is also a “barbershop mirrors” type of self-referencing paradox. Like the old Morton Salt label girl carrying Morton Salt on which a small version of herself was carry Morton Salt, & so on, my hometown had a town-entering Billboard that depicted the town & Billboard, which again depicted the town, & so on.] The Self, however, is bodiless & not a part of the Body or associated with a location in relation to a Body. The Senses are otherwise, so how can the Senses be considered to be the Self ?

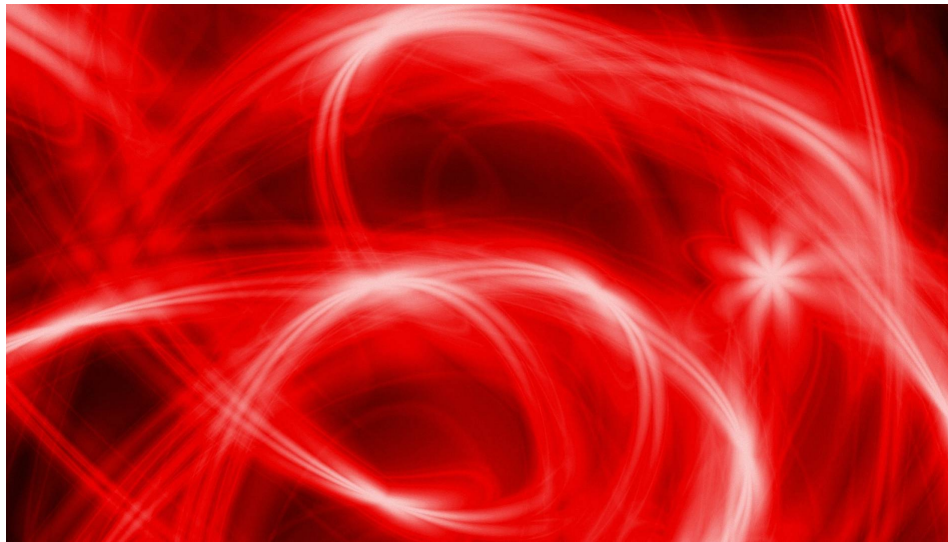
The Senses depend on the Self. But the Self exists as it is, innately nondependent on the Senses. This is the highest state of Detachment from the Senses. As pure Being, one is always detached from the Senses & thus, detached from the whole World. The Self is not the Senses & is not experienced by the Senses. The Senses are capable of perceiving Sense objects only, & the Self is not a material object. The sensory experience is only that of Sensation & not a separate Sense & a separate object. The Self is not a Sensation or a product of Sensations. So, how can the Senses be considered to be the Self ? The Self is the “eye of the eye” unseen by the Eye. The Self, which is formless Existence-Consciousness, cannot be sensed & does not have Senses. The Self is not a sensing entity, conceived as the nexus of all the Sensations. Instead, the Self is unalloyed Consciousness. The Self is all-seeing but “eyeless”. In Truth, the Senses do not exist. The Senses are only a figment of the Mind, which is in the infinite Consciousness. Upon the substrate of the Self, which is Existence-Consciousness, the Senses appear, being only the thought of those Senses. Nor do the Sense-objects separately exist. The Senseobjects appear only to & in the Senses. The Senses vanish, leaving the substrate unaffected & all alone. The substrate is Reality, which is unchanging. There is no actual creation of the Senses in that Consciousness.

Just as the Mind becomes the Object, the Instrument or means of Knowing, the Actor, the Action, & the results in a Dream, so is this also the case in the Waking state. The Real Self is different from the Mind & all those things that the Mind becomes (*object, instrument of knowing, actor, action, results*). The Self is without interior & exterior, such as the Mind & the World. The Self is homogenous Consciousness. Know the Self by ceasing the attribution of anything exterior or interior to the Self. Remembrance & forgetfulness, including remembrance & forgetfulness of the Self, these processes are also, only of the Mind. Both of these processes are products of Ignorance & do not touch the Self. Cease to regard the Self as a known or unknown *object*. If the Supreme Self is regarded as an *object* of knowledge, such is a superimposition of Imagination or

Ignorance. True Knowledge prevails when such Ignorance, or superimposition, is negated. This is like the case with the *rope* & the illusion of the *snake*.

When the conceptions of “me” & “mine” are attributed to the Self, such are manifestations of Ignorance. They are superimpositions upon the Self, which is only One, with neither Individuality nor any experience or thing possessed by and Individual. The “individual self” is thought to be the Seer, Hearer, Thinker, Knower, & such. In Reality, it is *Brahman*, the imperishable, indivisible, Non-Dual Self. The “individual self” or “I” is not different from the Real Self, which is *Brahman*.

Meditation on the Self is declared to be without Time, Space, direction, or Causation, since the Self is without these things. The Self itself is to be realized as timeless, & the Realization itself, being of the same nature, is bodiless & without regard to place. The Self itself is, without Causation, being Uncreated & Unborn. And the Realization, being of the same nature, need not wait for circumstance & is not an attempt to produce the Self anew. The Realization is a realizing of what the Self *truly is*. Let the Mind thus turn within, immersing itself in Self-Inquiry, absorbing itself in Knowledge, thereby losing its own form as it searches inwardly for its source. In this lies great Bliss & Immortality.



NMT (No-Me Teaching) new series 33

Fine-Tuned Universe 24:

God behind, & Probability in Fine-Tuning:

The Fine-Tuning argument concludes that, given the evidence of the Fine-Tuning of the cosmos, the existence of a Life-Permitting Universe (LPU) significantly confirms Theism

over the Naturalistic Single-Universe Hypothesis (NSU). Such confirmation is highly significant.

The challenge raised by the two most widely advocated versions of the Multi-Verse hypothesis – the *unrestricted* Multi-Verse hypothesis advocated by Lewis and Tegmark, according to which *all possible* Universes exist, and the *restricted* Multi-Verse hypothesis arising out of inflationary cosmology. I argued that neither of these is able adequately to explain away the fine-tuning or undercut the fine-tuning argument.

Finally, one might wonder whether there are other viable alternative explanations of LPU to that offered by Theism, NSU, or the Multi-Verse. One such possibility is various non-theistic Design hypotheses – either non-theistic supernatural beings or aliens in some Meta-Universe who can create bubble Universes. The postulated designer, D, could not be a merely "generic" designer but must be hypothesized to have some motivation to create a Life-Permitting Universe. Unless these hypotheses were advocated prior to the Fine-Tuning evidence, or we had independent motivations for them, they would not pass the *non-ad-hoc-ness* test of the restricted version of the Likelihood Principle.

Furthermore, from the perspective of probabilistic tension, these alternative design hypotheses typically would generate a corresponding probabilistic tension between the claim that the postulated Being had a motive to create a Life-Permitting world instead of some other type of world and the Beings' other attributes, something that does not arise for classical theism. Finally, for some of these postulated Beings, one could claim that even if LPU confirms their existence, we lack sufficient independent reasons to believe in their existence, whereas under Theism we have such reasons; or one could claim that they simply transfer the problem of design up one level.

The only one of these alternatives is the *Axiarchic* hypothesis, versions of which have been advanced in the last thirty years by John Leslie & by Hugh Rice and others, wherein goodness or ethical "required-ness" has a direct power to bring about concrete reality. Whatever the merits of this hypothesis, it is likely to entail Theism. Since God is the greatest possible Being, it is supremely good that God exist. Therefore, it is unclear that the *axiarchic* hypothesis actually conflicts with theism. In any case, we have solid philosophical grounds for claiming that given the Fine-Tuning evidence, the existence of a Life-Permitting Universe provides significant support for Theism over its non-*axiarchic* contenders.

If Atheism is correct, if the Universe and its laws are all that is or ever has been, how can it be said that the Universe, with all of its Fine-Tuned features, is in any relevant sense probable or improbable ? There are no antecedent conditions that could determine such a

probability. Hence, if the Universe is the ultimate brute fact, it is neither likely nor unlikely, probable nor improbable; it simply is.

Further, even if the Universe were somehow improbable, it is hard to see on the hypothesis of Atheism how we could ever know this. If we were in the position to witness the birth of many worlds – some designed, some undesigned – then we might be in a position to say of any particular World that it had such-and-such a probability of existing undesigned. But we simply are not in such a position. We have absolutely no empirical basis for assigning probabilities to ultimate facts .

In conjunction with the likelihood principle, probability is extensively used in scientific confirmation. Consider, for example, the arguments typically offered in favor of the thesis of common ancestry, continental drift theory, and the atomic hypothesis. The thesis of common ancestry is commonly supported by claiming that a variety of features of the world--such as the structure of the tree of life – would not be improbable if this thesis is true, but would be very improbable under other contending, non-evolutionary hypotheses, such as special creation. Consider, for instance, the following quotation from evolutionary biologist and geneticist Edward Dodson, in which he summarizes the case for evolution, understood as the thesis of common ancestry:

All pieces of evidence concur in suggesting evolution with varying degrees of cogency, but most can be explained on other bases, albeit with some damage to the law of parsimony. The strongest evidence for evolution is the concurrence of so many independent probabilities. That such different disciplines as biochemistry and comparative anatomy, genetics and biogeography should all point toward the same conclusion is very difficult to attribute to coincidence.

Similar lines of reasoning are given for accepting continental drift theory. For example, the similarity between the animal and plant life on Africa and South America millions of years ago was considered to provide significant support for continental drift theory. Why? Because it was judged very unlikely that this similarity would exist if continental drift theory were false, but not if it were true.

Finally, consider the use of epistemic probability in the confirmation of atomic theory. According to Wesley Salmon, what finally convinced virtually all physical scientists by 1912 of the atomic hypothesis was the agreement of at least thirteen independent determinations of Avogadro's number based on the assumption that atomic theory was correct. For example, one method of determining Avogadro's number is through observations of Brownian motion, that is, the random motion of very small particles suspended in a liquid, a motion that was postulated to be caused by the unequal, random impact of the molecules in the liquid. From this motion and the kinetic theory of heat,

one can calculate what the mass of each molecule must be in order to account for the observed motion, and then using that value one can obtain Avogadro's number.

The scientists reasoned that *if atomic theory were false, then such an agreement between thirteen different determinations of Avogadro's number would be exceedingly epistemically improbable* – in Salmon's words, an "utterly astonishing coincidence". Indeed, if scientists had not judged the agreement to be exceedingly improbable if atomic theory were false, it is difficult to see why they would take it to count as strong evidence in its favor. On the other hand, the scientists reasoned, if atomic theory were true, such an agreement would be expected. Thus, by implicitly using the *likelihood principle*, they reasoned that these independent determinations of Avogadro's number strongly confirmed atomic theory.

It should be noted that one could not avoid this sort of reasoning simply by rejecting Scientific Realism, since even though anti-realists reject the truth or approximate truth of certain types of well-confirmed hypotheses, they still accept them as being reliable bases for future explanations and predictions – that is, in Bas van Fraassen's terminology, they accept them as being "empirically adequate." Consequently, instead of interpreting the confirming evidence as evidence for a hypothesis' truth, they accept it as evidence for the hypothesis' empirical adequacy. This means that insofar as realists need to appeal to epistemic probabilities to support the approximate truth of a theory, anti-realists will need to appeal to those same probabilities in support of a theory's empirical adequacy – e.g., anti-realists would need to claim that it is highly improbable for the determinations of Avogadro's number to agree if atomic theory were not empirically adequate.

Since some of the probabilities in the aforementioned examples involve singular, non-repeatable states of affairs, they are not based on statistical probabilities, nor arguably other non-epistemic probabilities. This is especially evident for the probabilities involved in the confirmation of atomic theory since some of them involve claims about probabilities conditioned on the underlying structure and laws of the universe being different – e.g. atoms not existing. Hence, they are not based on actual physical propensities, relative frequencies, or theoretical models of the universe's operation. They therefore cannot be grounded in theoretical, statistical, or physical probabilities. Similar things can be said about many other related types of confirmation in science, such as the confirmation of quantum electrodynamics (QED) by its extraordinarily precise prediction of the gyromagnetic moment of the electron, which we shall discuss later in this chapter. Such cases, I contend, establish the widespread use of purely epistemic probabilities

in scientific confirmation that are neither grounded in other types of probability nor in experience – e.g., the probabilities invoked in the confirmation of atomic theory clearly

are not grounded in experience, since nothing like such an agreement had ever occurred before.

The probabilities in the above examples do not seem to be statistical probabilities; nor can they in any obvious way be justified by appealing to statistical probabilities. This is especially evident in the case for the epistemic probability involved in the confirmation of atomic theory since it involves claims about likelihoods if the underlying structure and laws of the universe were different – e.g., if atoms did not exist. Hence, these claims cannot be grounded in theoretical, statistical, or physical probabilities. Similar things can be said about many other similar types of confirmation in science, such as the confirmation of quantum electrodynamics by its extraordinarily precise prediction of the gyromagnetic moment of the electron, which we shall discuss below. Such cases, I contend, establish the widespread use of purely epistemic probabilities in scientific confirmation that are neither grounded in statistical probabilities nor experience – e.g., the probabilities invoked in atomic theory clearly are not grounded in experience, since nothing like such an agreement had ever occurred before.

Some more selected verses from the Ramana Maharshi disciple, Master Nome disciple:

The view of the World is a mirror image of the view of oneself since the identity of oneself determines the definition of the World. The Seer himself appears as the Seen, the “I” as “this”. For the purpose of knowing Reality without veils, one should Inquire to know oneself, giving up the objective outlook, as well as the Ego to whom it belongs. Those who are detached from the World & the Senses, who are not identified with the Body, who also perceive the transient nature of all the World, & who yearn for the direct experience of Knowledge of Reality as it is, those should so Inquire. The Wise view the World as transitory, as inert, & as a passing Dream. Such a one never expects the World to provide him with what is his Happiness, Identity, & Reality. To transcend the World is to remain blissful, at Peace always, & free in the Knowledge of unreality of the World & in the Knowledge of the Self’s freedom from that Illusion. This is the perception of Reality, free from the forms of Illusion. This is Abidance in wordless Being, true perception, transcendence of the World, & limitless freedom unaffected by anything of the World. The direct experience of indivisible Existence, & true experience is beyond debate or doubt for those who Inquire to know the Self, which is the sole existent Reality.

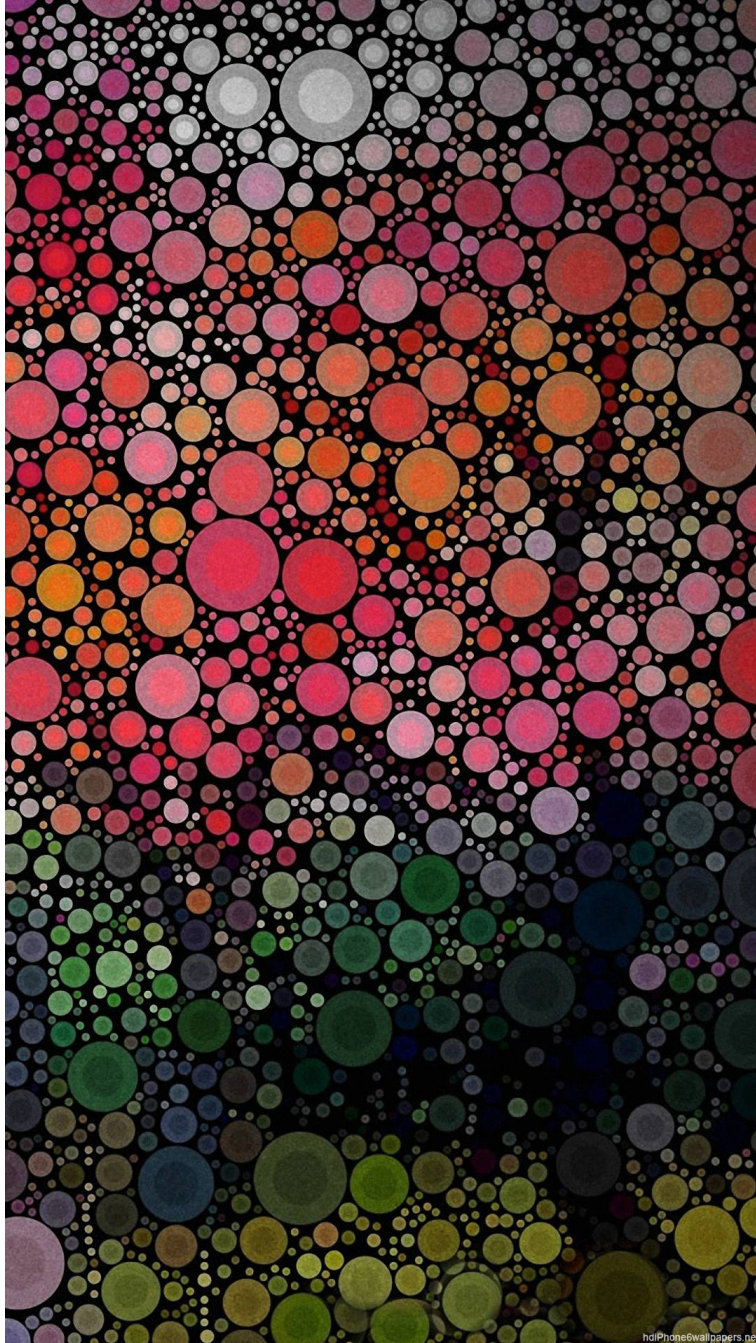
By the term “World” is meant all that is perceived, all objects, all activities, all events, the forms of living beings, anything in Space & Time, & anything seen, heard, touched, or sensed in any manner. Transcendence of the World is Liberation from Bondage & Suffering in relation to all of that. Abandonment of the objective outlook constituting the World yields the perception of Reality as it is. Such cannot be anything of the World, but only by Knowledge of the Self, the Reality that is. Where could one go in the World that

would be beyond the World ? Yet one's real Being is ever beyond, & Knowledge reveals the nature of one's real Being. The Self is changeless & permanent. The World is changeful & impermanent. Each object has a creation, a changeful duration & a destruction. This is true for all objects & for the World as a whole without exception. The Self is permanent with no creation or destruction. The perception of the World depends on the changeful Senses. A change in the Senses brings a change in the object & the World perceived. The Self does not change as the Senses do, for it is unchanging Being & the unchanging Witness of all the changing Senses. A change of mode, or state of Mind yields a corresponding change in the Senses & the perceived World. The Self is not changed, being unchanging Existence & Consciousness, & also the Witness of the Mind as well as the Senses. The Self is One, partless & indivisible. The World is composed of innumerable parts & divisions. The Self has no Form & is purely formless Being. The World is composed of Forms without which there is no World. There is no formless World.

To experience a World is to conceive that World. The World is not actually a Perception, but rather a Conception. To conceive or experience a World, one must first consider oneself as some kind of Body, or as in a Body, or consider the Body as existent & the Body as being somewhere. None of that is true, for such is only imagined in the Mind.

For such Illusions of the World, one must also regard the Sensations, not as Sensations or modes of the Mind, but as literally "physical". Such Sensation is endowed with the Duality of inner & outer, with the apparent object portion of the Sensation considered as separate from knowing aspect. [So there is not only "hearing" but also real "sounds", not only "seeing" but also real "light", not only "touching" but also real "matter"]].

Since the Body is not oneself, & the Self is not in a Body, the World is not arrayed "around" oneself. The "around" part is imagined in the Mind, & is not really all "around".



NMT (No-Me Teaching) new series 35

[In the unreal reflection called the "Universe", a product of an unreal Mind, even there, Infinite Intelligence is evident and inspiring.]

Fine-Tuned Universe 26:

Irreducible Complexities:

Michael Behe & others argued for the presence in the living cell of various “irreducible complexities” that would require the agency of Intelligence to bring them about. But they left open “the simplest possible design scenario,” This would posit “a single cell – formed billions of years ago – that already contained all information to produce descendent organisms” via Evolution. They suppose that “irreducibly complex” systems that manifested themselves long afterward, such as that which produces complex blood-clotting, might have had their designs already present in potency in that first cell but not yet “turned on”. The force of this suggestion depends on what “turning on” amounts to.

The original ID, Intelligent Design argument would require it to involve a “special” action on the Designer’s part, which would seriously dilute the notion of pre-established "potential". On the other hand, if such special “turn on” action is not required, the "complexities" hardly qualify as “irreducible.”

On the Cosmic scale, the Irreducible Complexity theorists postulated an enormous Inflation of the infant Universe during the 1st fraction of a second. This lasted no longer than 10^{-35} seconds. But that, in a brief moment, this Multiplied the diameter of the Universe by a mind-boggling factor of perhaps $10^{50} - 10^{90}$.

Problems thereby solved included the “Flatness Problem,” the tight constraint on the initial Energy Density that had given rise to the Fine-Tuning issue in the first place. It was shown that the Inflationary Expansion would be so great that it would force the density of the infant Universe to the critical value, no matter what the initial density might have been.

The need for Fine-Tuning of the Density Parameter would in this way be eliminated, or at least reduced, & the Principle of Indifference would once more reign for the pre-Inflation state, which could have any of the possible values of the Energy Density.

Besides handling anomalies, Inflation had 2 other major features in its favor. It could explain the Isotropy of the CMB Cosmic Microwave Radiation, for which Collins and & Hawking had attempted to develop an Anthropic explanation. More significantly, as later developments would show, it could make use of Quantum Theory to provide an answer to a long-standing puzzle. Where were the great in-homogeneities needed for galactic formation to come from if the background radiation was isotropic ?

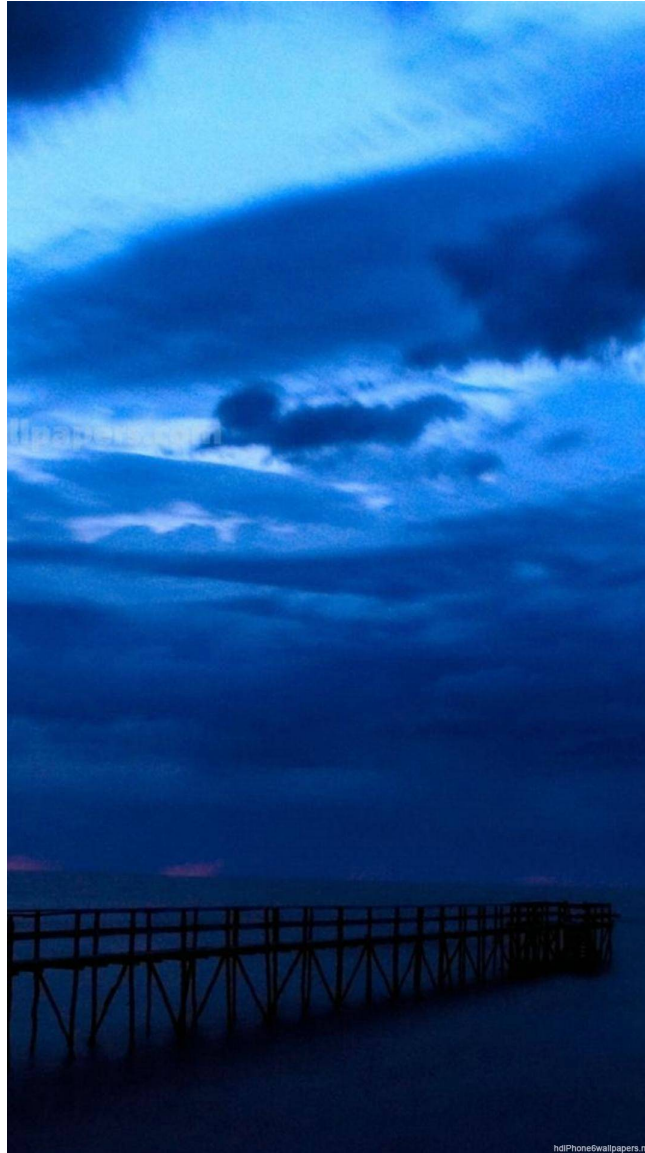
Inflation would have the effect of magnifying Quantum fluctuations to such an extent that they could furnish the necessary "galactic seeds". That would depend on finding that the radiation was not in fact perfectly isotropic, as it had originally seemed to be. But very tiny departures from isotropy were found by means of extraordinarily precise satellite observations. Furthermore, the pattern of these departures across the width of the sky is claimed to offer strong support to the Inflation hypothesis.

Other support has come, for example, from the distribution of diffuse inter-galactic gas in the very early Universe. It has to be said, however, that as yet no adequate theory has been formulated that can explain why the Inflation occurred. The hypothesis does not yet have as strong a mandate, therefore, as does the Big Bang theory to which it is an addendum. But as matters stand, it would be fair to say that the warrant for the original claim of Fine-Tuning for the initial Cosmic conditions had been substantially weakened. The Universe may have had a “chaotic” starting point after all.

Alas, for the Atheists, Inflation has since been defeated by later satellite observations, so Theistic Anthropic & Irreducible Complexity theses still stand.

Some more selected verses from the Ramana Maharshi disciple, Master Nome disciple:

The Wise free themselves from the Mind, from Thought, realizing that all Duality, which is all experience other than the Self, is a creation of the Mind. Such “creation” is due to thoughts & is composed of thoughts. Abidance, free from thought, requires one to abide free from dualistic notions regarding the Mind itself. The unmoving Self does not “travel” through the Mind, & thought does not “drag” the ever-still, transcendent Self about. The Self is silent & untouched, endowed with the supreme, solitary power of Reality. The Self does not contend with thought, as if thought were an enemy with its own power. Self-Inquiry entails freedom from the pursuit of delusive thoughts that, in the form of *vasanas* (or tendencies) form *Samsara*. Self-Knowledge is not merely a blank Mind in which thought activity is temporarily stilled. For Self-Realization, one should know the Self’s freedom thought & the true nature of the Mind. Inquiring: “for whom is this thought, for whom is this Mind ?” one should seek the Knowledge of the Self, beyond all mental modes & states. Inquiring: “Who am I ?” one should know true Being, interior to any thought, more formless than any thoughts, transcendent of all thought, more formless than any thought, transcendent of all thought, & ever free from all thought. After carefully reading the written instruction-order left with 1 empty bottle he smiles to see they have upped their order and he replaces the 1 empty with 2 full bottles. You get the sense that payment would be a small issue if there was any payment.



NMT (No-Me Teaching) new series 37

(Supposed) Future of an expanding Universe part I:

If the expansion of the Universe continues forever, the Universe will cool as it expands, eventually becoming too cold to sustain Life . For this reason, this future scenario is popularly called the *Big Freeze*.

Dark Energy can be represented by the Cosmological Constant Λ , a constant Energy Density filling Space homogeneously, or represented by *scalar fields*, such as Quintessence or Moduli, dynamic quantities whose Energy Density can vary in Time & Space. Dark Energy accelerates the expansion of the Universe, so that the space between clusters of galaxies will grow at an increasing rate.

Red-shift will stretch ancient, incoming photons (*even gamma rays*) to undetectably long wavelengths & low energies. Stars are expected to form normally for 10^{12} to 10^{14} years (*1-100 Trillion years*). But eventually the supply of gas needed for star formation will be exhausted. And as existing stars run out of fuel & cease to shine, the Universe will slowly & inexorably grow darker, one star at a time.

According to theories that predict Proton decay, the stellar remnants left behind will disappear, leaving behind only black holes, which themselves eventually disappear as they emit Hawking radiation. Ultimately, if the Universe reaches a state in which the temperature approaches a uniform value, no further work will be possible, resulting in a final *Heat Death* of the Universe.

Infinite expansion does not determine the spatial curvature of the Universe. It can be open (*with negative spatial curvature*), flat, or closed (*positive spatial curvature*). If it is closed, sufficient Dark Energy must be present to counteract the Gravitational attraction of matter & other forces tending to contract the Universe. Open & flat Universes will expand forever even in the absence of Dark Energy.

Observations of the CMB, Cosmic Micro-wave Background radiation by the Wilkinson Microwave Anisotropy Probe suggested that the Universe is spatially flat & has a significant amount of Dark Energy. In this case, the Universe should continue to expand at an accelerating rate. The acceleration of the Universe's expansion has also been confirmed by observations of distant Supernovae. If, as in the Concordance Model of Physical Cosmology (Lambda-cold Dark Matter or Λ CDM), the Dark Energy is in the form of a Cosmological Constant, the expansion will eventually become exponential, with the size of the Universe doubling at a constant rate.

If the theory of Inflation is true, the Universe went through an Episode dominated by a different form of Dark Energy in the first moments of the Big Bang; but Inflation ended, indicating an equation of state much more complicated than those for Dark Energy. It is possible that the Dark Energy equation of state could change again resulting in an event that would have consequences which are extremely difficult to predict.

Some more from Ramana Maharshi disciple, Master Nome:

Thoughts move in modes. Innumerable thoughts & modes are contained in states of Mind. All are included in 3 states of Mind: Waking, Dream, & Deep Dreamless Sleep. In the 1st 2 states (Waking & Dream), thought itself projects itself into itself & the content of thought changes according to those states. The Waking state is equivalent to the Dream state. In both states, the same kind of multiplicity manifests. In both states, subject & object appear.

The same kinds of mental function appear in both states. In both states, there is the same tendency to identify as a particular character with a particular Body exists. Cause & Effect are present in both states. Both states are characterized by non– perception of Reality & the mis–perception of Reality, which delusions are equivalent to not seeing a rope & imagining to be a snake. These 2 states, Waking & Dream are mutually exclusive (contradictory). Everything experienced in a given state changes within that state itself, or else changes with the transition from 1 state to the other. Only Existence-Consciousness remains the same, unaffected by the changes in such experiences & any change of state. So what is present in the Waking state tends to be absent in the Dream state, & what is present in the Dream state tends to be absent in the Waking state.

What appears within a state is only that state of Mind itself. The Dream state of Mind appears as only & all that is experienced in that Dream state. So too is it with the Waking state. Each state of Mind itself composes all that appears with the state. In the Deep Dreamless Sleep state, there is an absence Waking & Dream thoughts & their content. There is therefore no World, no Body, no Senses, no Ideas, no Memories, & no “person” existing in the Deep Dreamless Sleep. Yet Existence-Consciousness still is, & that Existence-Consciousness is the Self. The Self continues, even in the absence of thoughts in Deep Dreamless Sleep. The Self is then unaffected by the absence of all else, just as it is when all else appears in the other 2 states (Waking & Dream).

Deep Dreamless Sleep is characterized by the presence of Cause but with the absence of the Effect. Therefore it may be said that the “unmanifest seeds” of, or potential for, Ignorance is present but not the Effects of such Ignorance. In the Deep Dreamless Sleep there is only the non–perception of Reality, while the projection or hallucination of Multiplicity & Form are absent. The Self, Existence- Consciousness, is free from both Cause & Effect. In Self-Knowledge, neither the Veiling avarana of Reality nor the Projected vikshepa Illusion of Multiplicity, neither the non– perception of Real Being nor the mis–perception of Existence persists. The Self is itself & knows itself as it is.

From Existence-Consciousness comes Deep Dreamless Sleep. From Deep Dreamless Sleep comes Dream. From Dream comes the Waking state. Each succeeding state occurs with the preceding state. All occurs within Existence-Consciousness. & that is what one truly is. So it is better to say that the states, & the Worlds that appear in them, are more within one’s Self than that one is in those states of Mind (Waking, Dream, Deep Dreamless Sleep). Being beyond the 3 states, the Self is called “the 4th” (turiya), yet the Self is only One & its own self always (turiyatita or even beyond the 4th). The 3 states of Mind are only seen as 3 only so long as Consciousness is not known as it is. As Dream is to Deep Dreamless Sleep, emerging from within it, “forming” yet not really so, for both



NMT (No-Me Teaching) new series 39:

(Supposed) Future of an expanding Universe part II:

Planets fall or are flung from orbits by a close encounter with another star on some 10^{15} (Quadrillion) yrs. Over time, the orbits of planets will decay due to Gravitational Radiation. Otherwise, planets will be ejected from their local systems by Gravitational Perturbations caused by encounters with another stellar remnant.

Stellar remnants ultimately escape galaxies or fall into Black Holes by some 10^{19} to 10^{20} yrs. Over time, objects in a Galaxy exchange Kinetic Energy in a process of Dynamical Relaxation, making their velocity distribution approach the Maxwell-Boltzmann distribution. Dynamical Relaxation can proceed either by close encounters of 2 stars or

by less violent but more frequent distant encounters. In the case of a close encounter, 2 Brown Dwarfs or stellar remnants will pass close to each other. When this happens, the trajectories of the objects involved in the close encounter change slightly. After a large number of such encounters, lighter objects tend to gain Kinetic Energy while the heavier objects lose Kinetic Energy. Because of stochastic Dynamical Relaxation, some objects will gain enough energy to reach Galactic escape velocity & depart the Galaxy. They leave behind a smaller, denser Galaxy. Since encounters are more frequent in the denser Galaxy, the process then accelerates. The end result is that most objects are ejected from the Galaxy, leaving a small fraction (a few %) which fall into the central supermassive Black Hole.

After some 10^{34} yrs, the later evolution of the universe depends on the existence and rate of Proton Decay. If the Proton is unstable, it has a $1/2$ -life of at least 10^{34} yrs. If any of the Grand Unified Theories (GUT's) are correct, then there are theoretical reasons to believe that the half-life of the Proton is under 10^{41} yrs.

Neutrons bound into nuclei are also expected to decay with a $1/2$ -life comparable to the Proton's. In the event that the proton *does not decay* at all, stellar-mass objects would still disappear, but more slowly.

If the Proton half-life is approximately 10^{37} yrs, shorter or longer Proton half-lives will accelerate or decelerate the process. This means that after 10^{37} yrs, one-half of all Baryonic matter will have been converted into gamma ray Photons & Leptons through Proton decay.

Some review of Idealist Philosophy:

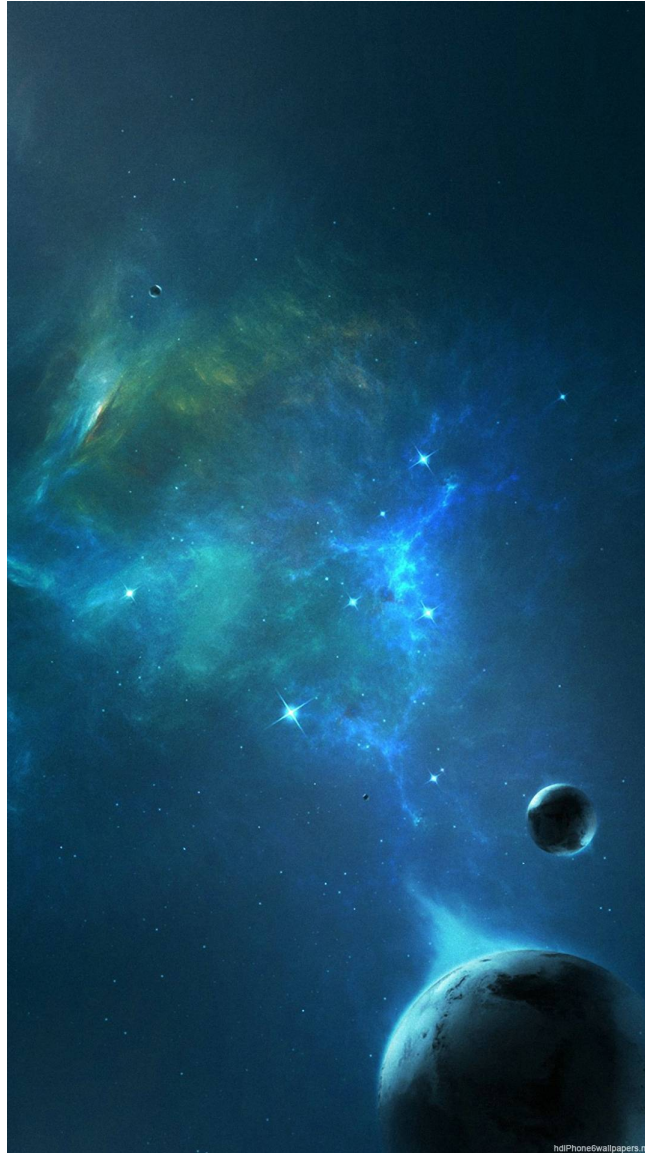
From Plato's "ideals", misapplication of the title for the philosophical school Idealism is sometimes begun there. Actually Idealism became began earlier with the Eleatic philosophers: Parmenides, Zeno, & Melissus. Later on, the Neo-platonists went well beyond Plato, again into Idealism, as with Plotinus, Porphyry, and so. Later, small contributions are made by Boethius & even René Descartes. But George Berkeley was the 1st true Idealist, seeing the World as Mind, (*though he left "behind" a physical World made by God as a handy reference*). The Eleatic philosophers & greatest Neo-platonists philosophers were actually beyond Idealism, being Enlightened Sages, embracing more Subjective Non-Duality.

Several German idealists like Fichte, Kant, & Hegel preceded a British school of Idealism culminating in Thomas Green, Bernard Bosanquet, John McTaggart & Francis Bradley. Twentieth-century philosophy in America begins with Idealism. At the turn of the 20th century, it was rising with Brand Blanshard & with Josiah Royce at Harvard.

Idealists were remarkable. They had never heard of Protons or Electrons, hardly even of Freud. Since they had come into Philosophy, not from Science, but from the Humanities, their scientific insight was lacking. Nor was their Logic very subtle. But whatever their technical deficiencies, these Idealists were wise men, learned men.

They knew how to state a case. They were perceptive, humane, & versatile. Philosophy for these Idealists was not an avocation or a specialty, but a way of life & the "breath" of life. It was a passionate pursuit of reasonableness in action & feeling as well as in thought.

The Idealism of the turn of the century was a fusion of two streams of thought. One of these, Subjective Idealism, took its rise in the ingenious mind of Bishop Berkeley & flowed down through David Hume & John Stuart Mill. The other, Objective Idealism, is as old as Plato & comes down through the Germany of Hegel, & the English Green & Bradley, to Josiah Royce in Harvard Yard. The first of these idealisms stands for the thesis, "All that is real is experience." The second stands for the thesis, "All that is real is rational." To see what American "Absolute Idealism" meant, we must see the meaning of both these theses.



Essay outside of the NMT (No-Me Teaching) series 4:

"CINEMA"

The later history of Quantum physics is marked by resistance to fulfilling the potential of its own revelations. The dullness of mistaken self-identification is at play as well, Specifically, most assumed Consciousness to be multiple & limited to the many separate, physical brains. So "Consciousness-created reality" in the Copenhagen Convention on Quantum Mechanics became muddled in confusion. Here essentially is the Quantum physicist who has posited "Consciousness-created reality" inside his own Brain & those of other people.

But if Consciousness is formless, where & how does one construct a boundary ? ESP, mass attitudes, herd instincts, & other phenomena hint at an interconnectedness of Minds.

In fact, [*looking ahead to a higher view that follows*] no formless principle is bounded, for the boundary would constitute a form. No separation exists within Consciousness, or between Consciousness & Existence & Happiness & Love.

To rectify the proper identification of the role & location of Consciousness, first consider the "TV viewer" Analogy. The *TV viewer* watches "shows" the are the stories of his Life. He can change "channels "& make other alterations but he does not "produce" shows or "broadcast" them. His selection is limited by his *karma*.

The self-doubting Quantum physicist may mistake "channel" selection for "creation" by Perception-selection. They argue, perhaps, that if 2 such "creators" sit at dinner, does one create the salt, & the other the pepper ? Einstein's similarly doubted that "a mouse could change the Universe, just by looking at it ?" Again, all this is mis-identification of the role & location of Consciousness.

Their "'TV Viewer" Model is riddled with contradiction until we visualize notice that the Viewer too, & his TV are but *images* on a *Cinema Screen*, as part of a *Movie* about TV Viewing. The sole audience is *identical* with the projecting light of Consciousness. The only *substance* behind the empty *images* is the Screen of Being, which is another way of alluding to the same Non-Dual Reality. Only with this true Identification of Consciousness is the Quantum Mechanical Measurement Question answered: Consciousness creates by *knowing*, like the Dreamer does, merely projecting *images* on the Screen of Consciousness itself.

There is no "*creatio ex nihilo*" or any true Wave-Particle Duality. The "Wave" part is a mathematical concept that parallels the symmetric beauty of even the unreal perceptions. The Wave-function collapses into an "*adjective*", not a *noun*. The Quantum Mechanical Interpretation Question is similarly answered: no *objective thing* exists to be a particle or a wave, & so between perceived *adjectives* there is no *noun* either. The answer is then that *nothing* happens between Perceptions, Consciousness remains in itself. Vedanta has utilized essentially the same Cinema Analogy for millennia, back-dated of course to earlier media such an oil painting or a theatrical play.

Essay outside of the NMT (No-Me Teaching) series 6:

Vedanta's analogy for 3 daily States of Mind.

We find another powerful Analogy, which we can call the "Coin", at the beginning or the Mandukya Upanishad. A gross physical analog with which to look at the waking and sleep states this Vedanta text employs an analogy of a particular coin to illustrate states of Reality and their relationship.

The actual coin, or actually the series of coins had somewhat of a bullseye design. For a more clear explanation, we use U.S. coins for example. If the smallest coin were a *dime*, for instance, then the very special *quarter* in this series would have a *dime* "imbedded" in its center. It is as if the dime were retained & another fifteen cents worth of silver were placed around it.

The *half-dollar* of the series incorporates the *quarter* with the *dime* imbedded.

Finally, another fifty cents worth of silver is placed around the compound *half-dollar* & the last in the series would be a large *silver dollar* piece containing the compound silver *half-dollar* itself.

Some such *coin* had existed in India, fashioned in this "bullseye" concentric manner, whatever the actual denominations might have been. The point of Analogy was to equate the entire composite *silver dollar* with the Reality of Consciousness.

The composite coins were chosen to illustrate how a larger category remains as the Background for the included region superimposed on it. The *dollar* coin of Consciousness remains in the middle where the *half dollar* has been superimposed. The Consciousness *dollar* Substrate still remains the ultimate Background even in the middle of the *half-dollar* where, in turn, the *quarter* is superimposed on the *half-dollar* which remains as its intermediate background.

Finally, in the same manner, the superimposed *dime* has the *quarter* for its immediate Background, with the *half-dollar* as the Background behind both of those. Consciousness again is the ultimate *silver dollar* Background.

This composite is specifically a very hierarchical & inclusive one. Within that *silver-dollar* Consciousness-Reality, the *half-dollar* piece represents the state of primal Ego Ignorance, as yet bereft of any thought & yet still permeated by Consciousness which is its all-Background, support, & substance.

This *half-dollar* piece represents the Deep Sleep State & also any moment of simple Ego superimposed upon pure Consciousness.

The *quarter*, in turn, represents any imaginary thought process within the *half-dollar* of Individuality, Ego, or Mind.

So the *half-dollar* is Ego, & at the same time the Deep Dreamless Sleep State, & the *quarter* is Mind.

There is a specific State involved there too in that the *quarter* also represents the Dream State & all other flights of Imagination, Day-dreaming, mental Conceptualizing, & Thought in general.

So Thought is within & is permeated by Ego-Mind, which in turn is contained within & permeated by Consciousness. The Ego is more fundamental than Thought, a kind of pre-Thought.

Consciousness that remains as the Background of Ego & the Deep Sleep State.

Meanwhile, this Ego & the Deep Sleep State are the Background of all Thought. One Non-Dual Consciousness is very much the whole story.

All along,. Ego is a momentary insubstantial disturbance in Consciousness. Like a whirlpool or eddy current in the Ocean, it never stands as a separate thing & appears or disappears in a moment. Not being other than "Water" at any point, like a transient Current such a thing as Ego is more a matter of definition than substance.

Not even a Thought in itself, the Ego is like the Origin point on a graph where Cartesian coordinate axes meet. Here this meeting Point is not counted as a Point in itself.

Nevertheless, each Thought or Coordinate Point has that Reference Origin in its very definition.

A pre-Thought, like Ego is at the beginning, middle, or end of any given Thought, each a "structure" which is not yet a Thought in itself. We might thus see the Ego as part of the middle of each Thought, as the Reference for the defining of the thought content.

Like a Quark which is more fundamental than a nucleon, an elusive sub-component, the Ego eludes direct definition. However Thought is imagined then, Consciousness lights up the Ego & any thought.

Consciousness thus remains the Background like the silver dollar in the Coin Analogy. The Ego, in turn, is Background for Thought, just like the *half-dollar* is the Background for the *quarter*.

What we call Deep Sleep just happens to be an extended period of thoughtless no-Mind.

We actually experience a smaller version of this thoughtless no-Mind between each thought. Occasionally, other instances of thoughtless no-Mind appears when we are knocked unconscious, under anaesthesia, in certain periods of trance, & so on.

Ego is also seen in the fact that we come out of Deep Sleep & so on with the same Personality intact. I even recall the pleasant quality of Deep Sleep as some thing enjoyed by me as Consciousness. '

Since Ego is part of every Thought, so is Deep Sleep the same Background evident as the temporal "space" between Thoughts.

Dream itself is but Thought. All the sights, sounds, touch, smell & taste; all the objects, people, places, & times are all made of *evanescent* Thought that vanishes, in total, at the moment we awake.

When we do awake, we add in those vivid Thoughts we know as Perceptions. We consider these Perceptions to be "direct experience", which is really a *joke* for we do not remain steady in the so-called "direct experience" of immediate Perception.

We often consider & think of things other than our immediate surroundings. We spend far more time Day-dreaming about the Future, or some other Fantasy.

Our biased memories of the Past are effectively Dreams as well. In fact, all conceptual Thought is like the Dream State interspersed within the Waking State Perception.

If we set Perception aside to typify the Waking State, then all other Thought is essentially the Dream State Background shining through. Gaps between Thoughts.

Again the Deep Sleep State is behind that, & Consciousness is the ultimate Background behind it all.

Consciousness, on turn, illumines all Thought. Then again the Waking State is just one particularly vivid & more-consistent Dream state.

Perception too appears in the Dream, at its own level. So there is really not much of a distinction. What is so special about the Waking State, which is the *dime* in the center, is that it is the most derivative . It is a Waking State of perceived Objects, performed Actions & accrued *karma*, Birth & Death.

The real special quality of the Waking State lies in the conscious quality that allows the pursuit of Self-Knowledge in the Waking State by intentional Self-inquiry.

The "Coin" scheme situates the Waking State as but one Dream among many..

Perception is placed among other Thoughts & Concepts. By the same token, we set that same Waking State aside for this special reason of. the pursuit of Self-Knowledge in the Waking State by intentional Self-inquiry. At the same time, Concept & Imagination, & the entire Dream State is situated within the Ego-Mind, while Egoity is only an insignificant disturbance within Consciousness.